

# **EPA Jacket 100-1466**

## **Vol.2**

# PROCESSING REQUEST

Reg. # 100-1466

Decision # 535346

Description: Add fertilizer language and application rates instructions

Electronic Label & Letter  
(see PPLS):

OR

Non Electronic  
Label & Letter  
(Scanning required):

☐ Dated: May 23, 2018

☐ Dated:

\*\*\*Only one label type should be selected\*\*\*

Other Materials Sent (see jacket):

☐ New CSF(s) Dated:

☐ Other:

File this coversheet and attached materials in the jacket. It must be well organized and clipped together, NOT STAPLED. Then give the jacket with the coversheet and materials to staff in the Information Services Center (ISC) (Room S-4900). If a jacket is full or only available as an image, please file materials in a new jacket and bring it down to the (ISC). For further information please call 703-605-0716.

Reviewer: BeWanda Alexander

Division: RD

Phone: (703)347-0313

Date: May 23, 2018





UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
WASHINGTON, DC 20460

OFFICE OF CHEMICAL SAFETY  
AND POLLUTION PREVENTION

May 23, 2018

Ms. Amanda M. Foderaro  
Regulatory Specialist  
Syngenta Crop Protection, LLC  
P.O. Box 18300  
Greensboro, NC 27419

Subject: Label Amendment – Add fertilizer language and application rates instructions  
Product Name: Acuron Herbicide  
EPA Registration Number: 100-1466  
Application Date: October 24, 2017  
Decision Number: 535346

Dear Ms. Foderaro:

The amended label referred to above, submitted in connection with registration under the Federal Insecticide, Fungicide and Rodenticide Act, as amended, is acceptable. This approval does not affect any conditions that were previously imposed on this registration. You continue to be subject to existing conditions on your registration and any deadlines connected with them.

A stamped copy of your labeling is enclosed for your records. This labeling supersedes all previously accepted labeling. You must submit one copy of the final printed labeling before you release the product for shipment with the new labeling. In accordance with 40 CFR 152.130(c), you may distribute or sell this product under the previously approved labeling for 18 months from the date of this letter. After 18 months, you may only distribute or sell this product if it bears this new revised labeling or subsequently approved labeling. "To distribute or sell" is defined under FIFRA section 2(gg) and its implementing regulation at 40 CFR 152.3.

Should you wish to add/retain a reference to the company's website on your label, then please be aware that the website becomes labeling under the Federal Insecticide Fungicide and Rodenticide Act and is subject to review by the Agency. If the website is false or misleading, the product would be misbranded and unlawful to sell or distribute under FIFRA section 12(a)(1)(E). 40 CFR 156.10(a)(5) list examples of statements EPA may consider false or misleading. In addition, regardless of whether a website is referenced on your product's label, claims made on the website may not substantially differ from those claims approved through the registration process. Therefore, should the Agency find or if it is brought to our attention that a website contains false or misleading statements or claims substantially differing from the EPA approved registration, the website will be referred to the EPA's Office of Enforcement and Compliance.

Your release for shipment of the product constitutes acceptance of these conditions. If these conditions are not complied with, the registration will be subject to cancellation in accordance

Page 2 of 2  
EPA Reg. No. 100-1466  
Decision No. 535346

with FIFRA section 6. If you have any questions, please contact BeWanda Alexander by phone at (703)347-0313, or via email at [alexander.bewanda@epa.gov](mailto:alexander.bewanda@epa.gov).

Sincerely,

A handwritten signature in black ink, appearing to read "Erik Kraft", with a stylized flourish at the end.

Erik Kraft, Product Manager 24  
Fungicide and Herbicide Branch  
Registration Division (7505P)  
Office of Pesticide Programs

Enclosure

**RESTRICTED USE PESTICIDE**  
**(GROUND AND SURFACE WATER CONCERNS)**  
 FOR RETAIL SALE TO AND USE ONLY BY CERTIFIED APPLICATORS OR PERSONS UNDER THEIR DIRECT SUPERVISION, AND ONLY FOR THOSE USES COVERED BY THE CERTIFIED APPLICATOR'S CERTIFICATION.  
 THIS PRODUCT IS A RESTRICTED-USE HERBICIDE DUE TO GROUND AND SURFACE WATER CONCERNS. USERS MUST READ AND FOLLOW ALL PRECAUTIONARY STATEMENTS AND INSTRUCTIONS FOR USE IN ORDER TO MINIMIZE POTENTIAL FOR ATRAZINE TO REACH GROUND AND SURFACE WATER.

Sale, use and distribution of this product in Nassau and Suffolk Counties in the State of New York is prohibited.

ATRAZINE	GROUP	5	HERBICIDE
BICYCLOPYRONE	GROUP	27	HERBICIDE
MESOTRIONE	GROUP	27	HERBICIDE
S-METOLACHLOR	GROUP	15	HERBICIDE

### Acuron® Herbicide

A Herbicide for Control of Annual Grass and Broadleaf Weeds in Field Corn, Seed Corn, Silage Corn, Sweet Corn and Yellow Popcorn

#### Active Ingredients:

S-metolachlor: (CAS No. 87392-12-9).....	23.40%
Atrazine*: (CAS No. 1912-24-9) .....	10.93%
Mesotrione: (CAS No. 104206-82-8) .....	2.60%
Bicyclopyrone: (CAS No. 352010-68-5) .....	0.65%
Other Ingredients:	62.42%
Total:	100.00%

Acuron® Herbicide is a ZC formulation containing 1.0 pound Atrazine, 0.06 pound Bicyclopyrone, 0.24 pound Mesotrione, and 2.14 pounds S-metolachlor per gallon.

\*Atrazine with a maximum of 0.45% related triazines.

**KEEP OUT OF REACH OF CHILDREN.**

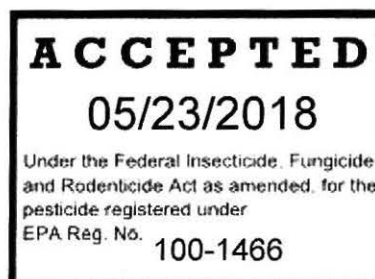
## CAUTION

See additional precautionary statements and directions for use on label.

EPA Reg. No. 100-1466

\_\_\_\_ gallons  
Net Contents

[Batch Code: \_\_\_\_ (For nonrefillables only.)]



<b>FIRST AID</b>	
<b>If swallowed</b>	<ul style="list-style-type: none"><li>• Call a Poison Control Center or doctor immediately for treatment advice.</li><li>• Have person sip a glass of water if able to swallow.</li><li>• Do not induce vomiting unless told to do so by a poison control center or doctor.</li><li>• Do not give anything by mouth to an unconscious person.</li></ul>
<b>If in eyes</b>	<ul style="list-style-type: none"><li>• Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye.</li><li>• Call a Poison Control Center or doctor for treatment advice.</li></ul>
<b>If on skin or clothing</b>	<ul style="list-style-type: none"><li>• Take off contaminated clothing.</li><li>• Rinse skin immediately with plenty of water for 15-20 minutes.</li><li>• Call a Poison Control Center or doctor for treatment advice.</li></ul>
<b>If inhaled</b>	<ul style="list-style-type: none"><li>• Move person to fresh air.</li><li>• If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth, if possible.</li><li>• Call a Poison Control Center or doctor for further treatment advice.</li></ul>
Have the product container or label with you when calling a poison control center or doctor, or going for treatment.	
<b>HOT LINE NUMBER</b> For 24 Hour Medical Emergency Assistance (Human or Animal) or Chemical Emergency Assistance (Spill, Leak, Fire or Accident), Call <b>1-800-888-8372</b>	

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## **PRECAUTIONARY STATEMENTS**

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### **Hazards to Humans and Domestic Animals**

#### **CAUTION**

Harmful if swallowed. Causes moderate eye injury. Avoid contact with eyes, skin, or clothing. Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals.

## Personal Protective Equipment (PPE)

**Mixers, Loaders, Applicators and other handlers must wear:**

- Coveralls over short-sleeved shirt and short pants
- Chemical-resistant gloves made of barrier laminate, butyl rubber ≥ 14 mils, nitrile rubber ≥ 14 mils, neoprene rubber ≥ 14 mils, natural rubber ≥ 14 mils, polyethylene, polyvinyl chloride (PVC) ≥ 14 mils, or Viton® ≥ 14 mils
- Chemical-resistant footwear plus socks
- Chemical-resistant apron when mixing/loading, cleaning up spills, or cleaning equipment, or otherwise exposed to the concentrate
- Chemical-resistant headgear for overhead exposure

See engineering controls for additional requirements.

Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables exist, use detergent and hot water. Keep and wash PPE separately from other laundry. Discard clothing and other absorbent materials that have been drenched or heavily contaminated with this product's concentrate. Do not reuse them.

## Engineering Controls

When applicators use closed systems or enclosed cabs in a manner that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides [40 CFR 170.240(d)(5)], the handler PPE requirements may be reduced or modified as specified in the WPS.

### User Safety Recommendations

#### Users should:

- Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet.
- Remove clothing/PPE immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.
- Remove PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

## Environmental Hazards

Do not apply directly to water, to areas where surface water is present, or to intertidal areas below the mean high water mark. Do not contaminate water when disposing of equipment wash water or rinsate. This product contains atrazine, which has been shown to be toxic to aquatic invertebrates. Runoff and drift from treated areas may be hazardous to aquatic organisms in neighboring areas. Do not apply when weather conditions favor drift from treated areas.

### **Ground Water Advisory**

Acuron Herbicide contains the active ingredients atrazine, bicyclopyrone, mesotrione and S-metolachlor.

Atrazine can travel (seep or leach) through soil and can enter ground water which may be used as drinking water. Atrazine has been found in ground water. Users are advised not to apply atrazine to sand and loamy sand soils where the water table (ground water) is close to the surface and where these soils are very permeable, i.e., well-drained. Your local agricultural agencies can provide further information on the type of soil in your area and the location of ground water.

Bicyclopyrone is known to leach through soil into ground water under certain conditions as a result of label use. This chemical may leach into ground water if used in areas where soils are permeable, particularly where the water table is shallow.

S-metolachlor is known to leach through soil into ground water under certain conditions as a result of agricultural use. Use of this product in areas where soils are permeable, particularly where the water table is shallow may result in ground water contamination.

### **Surface Water Advisory**

This product has a high potential for reaching surface water via runoff for several months or more after application. A level, well-maintained vegetative buffer strip between areas to which this product is applied and surface water features such as ponds, streams, and springs will reduce the potential loading of atrazine, bicyclopyrone, mesotrione and S-metolachlor from runoff water and sediment. Runoff of this product will be reduced by avoiding applications when rainfall or irrigation is expected to occur within 48 hours.

### **Mixing/Loading Instructions**

Care must be taken when using this product to prevent back-siphoning into wells, spills, or improper disposal of excess pesticide, spray mixtures, or rinsates.

Check valves or antisiphoning devices must be used on mixing equipment.

This product must not be mixed/loaded or used within 50 ft of wells, including abandoned wells, drainage wells, and sink holes. Operations that involve mixing, loading, rinsing, or washing to this product into or from pesticide handling or application equipment or containers within 50 ft of any well are prohibited, unless conducted on an impervious pad constructed to withstand the weight of the heaviest load that may be positioned on or moved across the pad. Such a pad shall be designed and maintained to contain any product spills or equipment leaks, container or equipment rinse or wash water, and rain water that may fall on the pad. Surface water shall not be allowed to either flow over or from the pad, which means the pad must be self-contained. The pad shall be sloped to facilitate material removal. An unroofed pad shall be of sufficient capacity to contain, at a minimum, 110% of the capacity of the largest pesticide.

container or application equipment on the pad. A pad that is covered by a roof of sufficient size to completely exclude precipitation from contact with the pad shall have a minimum containment capacity of 100% of the capacity of the largest pesticide container or application equipment on the pad. Containment capacities as described above shall be maintained at all times. The above specified minimum containment capacities do not apply to vehicles when delivering pesticide shipments to the mixing/loading site.

Additional State imposed requirements regarding well head setbacks and operational area containment must be observed.

This product must not be mixed or loaded within 50 ft of perennial or intermittent streams and rivers, natural or impounded lakes and reservoirs. This product may not be applied within 66 ft of the points where field surface water runoff enters perennial or intermittent streams and rivers or within 200 ft from the edge of natural or impounded lakes and reservoirs. If this product is applied to highly erodible land, the 66 ft buffer or setback from runoff entry points must be planted to crop, or seeded with grass or other suitable crop.

#### **Tile-Outletted Terraced Fields Containing Standpipes**

One of the following restrictions must be used in applying atrazine to tile-outletted terraced fields containing standpipes:

1. Do not apply this product within 66 ft of standpipes in tile-outletted terraced fields.
2. Apply this product to the entire tile-outletted terraced field and immediately incorporate it to a depth of 2-3 inches in the entire field.
3. Apply this product to the entire tile-outletted terraced field under a no-till practice only when a high crop residue management practice is practiced. High crop residue management is described as a crop management practice where little or no crop residue is removed from the field during and after crop harvest.

#### **Physical and Chemical Hazards**

Do not use or store near heat or open flame.



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**CONDITIONS OF SALE AND LIMITATION OF WARRANTY AND LIABILITY**

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**NOTICE:** Read the entire Directions for Use and Conditions of Sale and Limitation of Warranty and Liability before buying or using this product. If the terms are not acceptable, return the product at once, unopened, and the purchase price will be refunded.

The Directions for Use of this product must be followed carefully. It is impossible to eliminate all risks inherently associated with the use of this product. Crop injury, ineffectiveness or other unintended consequences may result because of such factors as manner of use or application, weather or crop conditions, presence of other materials or other influencing factors in the use of the product, which are beyond the control of SYNGENTA CROP PROTECTION, LLC or Seller. To the extent permitted by applicable law, Buyer and User agree to hold SYNGENTA and Seller harmless for any claims relating to such factors.

SYNGENTA warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes stated in the Directions for Use, subject to the inherent risks referred to above, when used in accordance with directions under normal use conditions. To the extent permitted by applicable law: (1) this warranty does not extend to the use of the product contrary to label instructions, or under conditions not reasonably foreseeable to or beyond the control of Seller or SYNGENTA, and (2) Buyer and User assume the risk of any such use. **TO THE EXTENT PERMITTED BY APPLICABLE LAW, SYNGENTA MAKES NO WARRANTIES OF MERCHANTABILITY OR OF FITNESS FOR A PARTICULAR PURPOSE NOR ANY OTHER EXPRESS OR IMPLIED WARRANTY EXCEPT AS WARRANTED BY THIS LABEL.**

To the extent permitted by applicable law, in no event shall SYNGENTA be liable for any incidental, consequential or special damages resulting from the use or handling of this product. **TO THE EXTENT PERMITTED BY APPLICABLE LAW, THE EXCLUSIVE REMEDY OF THE USER OR BUYER, AND THE EXCLUSIVE LIABILITY OF SYNGENTA AND SELLER FOR ANY AND ALL CLAIMS, LOSSES, INJURIES OR DAMAGES (INCLUDING CLAIMS BASED ON BREACH OF WARRANTY, CONTRACT, NEGLIGENCE, TORT, STRICT LIABILITY OR OTHERWISE) RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT, SHALL BE THE RETURN OF THE PURCHASE PRICE OF THE PRODUCT OR, AT THE ELECTION OF SYNGENTA OR SELLER, THE REPLACEMENT OF THE PRODUCT.**

SYNGENTA and Seller offer this product, and Buyer and User accept it, subject to the foregoing Conditions of Sale and Limitation of Warranty and Liability, which may not be modified except by written agreement signed by a duly authorized representative of SYNGENTA.



## DIRECTIONS FOR USE

It is a violation of Federal Law to use this product in a manner inconsistent with its labeling.

ANY USE OF THIS PRODUCT IN AN AREA WHERE USE IS PROHIBITED IS A VIOLATION OF FEDERAL LAW. Before using this product, you must consult the Atrazine Watershed Information Center (AWIC) to determine whether the use of this product is prohibited in your watershed. AWIC can be accessed through [www.atrazine-watershed.info](http://www.atrazine-watershed.info) or 1-866-365-3014. If use of this product is prohibited in your watershed, you may return this product to your point of purchase or contact Syngenta Crop Protection, LLC for a refund.

Do not apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application. For any requirements specific to your State or Tribe, consult the agency responsible for pesticide regulation.

### AGRICULTURAL USE REQUIREMENTS

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR Part 170. This Standard contains requirements for the protection of agricultural workers on farms, forests, nurseries, and greenhouses, and handlers of agricultural pesticides. It contains requirements for training, decontamination, notification, and emergency assistance. It also contains specific instructions and exceptions pertaining to the statements on this label about personal protective equipment (PPE), and restricted-entry interval. The requirements in this box only apply to uses of this product that are covered by the Worker Protection Standard.

**Do not enter or allow worker entry into treated areas during the restricted-entry interval (REI) of 24 hours.**

For early entry to treated areas that is permitted under the Worker Protection Standard and that involves contact with anything that has been treated, such as plants, soil and water, wear:

- Coveralls over short-sleeved shirt and short pants
- Chemical-resistant gloves made of barrier laminate, butyl rubber  $\geq$  14 mils, nitrile rubber  $\geq$  14 mils, neoprene rubber  $\geq$  14 mils, natural rubber  $\geq$  14 mils, polyethylene, polyvinyl chloride (PVC)  $\geq$  14 mils or Viton  $\geq$  14 mils
- Chemical resistant footwear plus socks
- Chemical-resistant headgear for overhead exposure.

**FAILURE TO FOLLOW THE DIRECTIONS FOR USE AND PRECAUTIONS ON THIS LABEL MAY RESULT IN POOR WEED CONTROL, CROP INJURY, OR ILLEGAL RESIDUES.**

**Sale, use and distribution of this product in Nassau and Suffolk Counties in the State of New York is prohibited.**

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## PRODUCT INFORMATION

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Acuron Herbicide may be used preemergence and postemergence in the culture of field corn, seed corn, and silage corn. Acuron Herbicide may also be used in the culture of sweet corn and yellow popcorn but the application must be made prior to crop emergence, (i.e., preemergence) or severe crop injury may occur.

Acuron Herbicide is a combination of the herbicides: atrazine, bicyclopyrone, mesotrione and S-metolachlor plus the safener benoxacor. Acuron Herbicide is recommended for management of the weed species listed in Tables 1 and 2.

### ATRAZINE, BICYCLOPYRONE, MESOTRIONE AND S-METOLACHLOR HERBICIDE RATE LIMITATIONS

Certain states may have established rate limitations within specific geographical areas for the use of atrazine. These more restrictive/protective requirements must be followed. Consult your state lead pesticide control agency for additional information. It is a violation of this label to deviate from state use regulations.

- When tank mixing or sequentially applying atrazine or products containing atrazine with Acuron Herbicide to corn, do not exceed an application rate of 2.0 lb active ingredient of atrazine per acre for any single application and the total pounds of atrazine applied (lb ai per acre) must not exceed 2.5 lb active ingredient per acre per year.
- Maximum broadcast application rates for atrazine in corn must be as follows:
  - If no atrazine was applied prior to corn emergence, apply a maximum of 2.0 lb ai/A broadcast. If a postemergence treatment is required following an earlier herbicide application, the total atrazine applied may not exceed 2.5 lb ai/A per calendar year.
  - Apply a maximum of 2.0 lb ai/A as a single preemergence application on soils that are not highly erodible or on highly erodible soils (as defined by the Natural Resource Conservation Service) if at least 30% of the soil is covered with plant residues.
  - Apply a maximum of 1.6 lb ai/A as a single preemergence application on highly erodible (as defined by the Natural Resource Conservation Service) soils if <30% of the surface is covered with plant residues; or 2.0 lb ai/A if only applied postemergence.

**Note:** For purposes of calculating total atrazine active ingredient applied, Acuron Herbicide contains 1.0 lb ai atrazine plus related per gallon.

Do not exceed label dosage rates, nor combined maximum annual rates for mesotrione (no more than 0.24 lb of mesotrione active ingredient must be applied per acre of corn per year), and S-metolachlor (the maximum annual use rate per year is 3.71 lb ai/A for corn). Do not apply more than 0.045 lb ai/A per year of bicyclopyrone for corn.

### **ACURON HERBICIDE USE PRECAUTIONS**

- Applied according to directions and under normal growing conditions, Acuron Herbicide will not harm the treated crop. During germination and early stages of growth, extended periods of unusually cold and wet or hot and dry weather, insect or plant disease attack, carryover pesticide residues, the use of certain soil applied systemic insecticides, improperly placed fertilizers or soil insecticides, may weaken crop seedlings. Acuron Herbicide used under these conditions could result in crop injury.
- Where reference is made to weeds partially controlled, partial control can either mean erratic control from good to poor or consistent control at a level below that generally considered acceptable for commercial weed control.
- Dry weather following preemergence application of Acuron Herbicide or an Acuron Herbicide tank mixture may reduce effectiveness. If possible, cultivate if weeds develop.
- Applying Acuron Herbicide postemergence to corn that has received an at-plant application of Counter® insecticide can result in severe corn injury. Temporary corn injury may occur if Acuron Herbicide is applied to emerged corn where organophosphate insecticides other than Counter were applied at planting.
- Postemergence (emerged corn) applications of any organophosphate or carbamate insecticide within 7 days before or 7 days after an Acuron Herbicide application may result in severe corn injury.

### **ACURON HERBICIDE USE RESTRICTIONS**

- Grazing Restriction: To avoid possible illegal residues, do not graze or feed forage from treated areas for 45 days following application.
- Pre-Harvest Interval (PHI): Corn (for grain, seed, or silage) may be treated up to 12 inches tall. Do not harvest forage within 60 days after application.
- Do not apply more than 3.0 qt of Acuron Herbicide per acre in a single application.
- Do not apply more than 3.0 qt of Acuron Herbicide per acre per year.
- Do not make more than two Acuron Herbicide applications per year.
- Do not make the second application within 14 days of the first application.

- Do not use aerial application to apply Acuron Herbicide.
- Do not apply Acuron Herbicide to sweet corn or yellow popcorn after the crop has emerged or severe crop injury may occur.
- Do not use Acuron Herbicide on any crop other than corn (for grain, seed, or silage), sweet corn (preemergence applications only) or yellow popcorn (preemergence applications only).
- Do not use Acuron Herbicide in the culture of white popcorn or ornamental (Indian) corn or injury may occur.
- Do not contaminate irrigation water used for crops or water used for domestic purposes.
- Thoroughly clean sprayer or other application device before using. Dispose of cleaning solution in a responsible manner. Do not use a sprayer or applicator contaminated with other materials, or crop damage or sprayer clogging of the application device may occur.
- Read and observe all precautions and limitations on this label and the label of each product used in tank mixtures.
- Do not make postemergence (emerged corn) applications of Acuron Herbicide in a tank mix with any organophosphate or carbamate insecticide, or severe corn injury may occur.
- Do not apply under conditions which favor runoff or wind erosion of soil containing this product to non-target areas. To prevent off-site movement due to runoff or wind erosion:
  - Avoid treating powdery dry or light sand soils when conditions are favorable for wind erosion. Under these conditions, the soil surface should first be settled by rainfall or irrigation.
  - Do not apply to impervious substrates, such as paved or highly compacted surfaces.
  - Do not use tail water from the first flood or furrow irrigation of treated fields to treat nontarget crops, unless at least ½ inch of rainfall has occurred between application and the first irrigation.

## WEED RESISTANCE MANAGEMENT

ATRAZINE	GROUP	5	HERBICIDE
BICYCLOPYRONE	GROUP	27	HERBICIDE
MESOTRIONE	GROUP	27	HERBICIDE
S-METOLACHLOR	GROUP	15	HERBICIDE

Naturally occurring biotypes of certain weed species with resistance to triazines, ALS, PPO, Glycine (glyphosate) and HPPD herbicides are known to exist. If biotypes of weeds resistant to triazines, ALS, PPO and glycine inhibitors are present in the field, this herbicide should control them if they are listed in Tables 1 and 2.

To reduce the risk of weeds developing resistance to HPPD inhibitors, implement a program including both preemergence and/or postemergence herbicides that provide effective control of all weeds using multiple modes of action. This includes scouting fields before application to ensure the herbicide will be appropriate for the weeds present. Scout fields and eliminate weed escapes. If suspected weed resistance is observed against a particular weed species contact your Syngenta or retailer representative or call Syngenta Customer Service (1-800-334-9481). Lack of weed control is not necessarily an indicator of weed resistance.

Consider weed resistance management strategies that include two or more modes of action where a minimum of two modes of action are effective at controlling the target weed when either are applied alone.

Read and follow all label directions.

Acuron Herbicide contains four herbicide active ingredients and three modes of action and can be an effective component of a weed resistance management strategy.

### Principles of Herbicide Resistant Weed Management

#### Scout and know your field

- Know weed species present in the field to be treated through scouting and field history. An understanding of weed biology is useful in designing a resistance management strategy. Ensure the weed management program will control all weeds present.
- Fields should be scouted prior to application to determine species present and growth stage. Always apply this herbicide at the full labeled rate and correct timing for the weeds present in the field.

#### Utilize non-herbicidal practices to add diversity

- Use diversified management tactics such as cover crops, mechanical weed control, harvest weed seed control, and crop rotation as appropriate.



### **Use good agronomic practices, start clean and stay clean**

- Use good agronomic practices that enhance crop competitiveness.
- Plant into weed-free fields utilizing tillage or an effective burndown herbicide for control of emerged weeds.
- Sanitize farm equipment to avoid spreading seed or vegetative propagules prior to leaving fields.

### **Difficult to control weeds**

- Fields with difficult to control weeds should be planted in rotation with crops that allow the use of herbicides with an alternative mode of action or different management practices.
- Difficult to control weeds may require sequential applications, such as a broad spectrum preemergence herbicide followed by one or more postemergence herbicide applications. Utilize herbicides containing different modes of action effective on the target weeds in sequential applications.

### **Do not overuse the technology**

- Do not use more than two applications of this or any other herbicide with the same mode of action in a single growing season unless mixed with an herbicide with a different mode of action which provides overlapping spectrum for the difficult to control weeds.

### **Scout and inspect fields following application**

- Prevent an influx of weeds into the field by controlling weeds in field borders.
- Scout fields after application to verify that the treatment was effective.
- Suspected- herbicide resistant weeds may be identified by these indicators
  - Failure to control a weed species normally controlled by the herbicide at the dose applied, especially if control is achieved on adjacent weeds;
  - A spreading patch of non-controlled plants of a particular weed species; and
  - Surviving plants mixed with controlled individuals of the same species.
- Report non-performance of this product to your Syngenta retailer, Syngenta representative, or call 1-866-Syngent(a) (866-796-4368). If resistance is suspected ensure weed escapes are controlled using an herbicide with an effective mode of action and/or use non-chemical means to prevent further seed production.

### **Prevent weed escapes before, during, and after harvest**

- Do not allow weed escapes to produce seed or vegetative structures such as tubers or stolons which contribute to spread and survival. Consider harvest

weed seed management and control weeds post-harvest to prevent seed production.

### Resistant weeds

- Contact your local Syngenta representative, retailer, crop advisor or extension agent to determine if weeds resistant to modes of action contained in this product are present in your area. Do not assume that each listed weed is being controlled by multiple modes of action. Premixes are intended to broaden the spectrum of weeds that are controlled. Some weeds may be controlled by only one of the active ingredients in this product. If resistant biotypes have been reported, use the full labeled rate of this product, apply at the labeled timing, and tank mix with an additional different mode of action product so there are multiple effective modes of application for each suspected resistant weed.

### SOIL ORGANIC MATTER

Determine the organic matter of the soil on which the application is to be made prior to application. The use rate of Acuron Herbicide is based on percent soil organic matter.

### REDUCED AND NO-TILL SYSTEMS

Acuron Herbicide may be used in reduced and no-till systems. The highest levels of control will be obtained when applications are made as close to planting as possible. It is advised that a burndown herbicide including Gramoxone®, Roundup®, glyphosate or 2,4-D be tank mixed with Acuron Herbicide in reduced or no-till systems if weeds are present at application and the corn has not yet emerged.

### WEEDS CONTROLLED

Acuron Herbicide applied as directed in this label will control or suppress the weeds listed in Tables 1 and 2. Additional weeds may be controlled with tank mixes. See the **Acuron Herbicide Tank Mix Combinations** section for specified tank mix combinations. Always consult the tank mix product labels for specific rates and use directions.

**Table 1. Weeds Controlled or Partially Controlled by Preemergence Applications of Acuron Herbicide**

Common Name	Scientific Name	Weed Rating <sup>1</sup>
<b>Broadleaf Weeds</b>		
Amaranth, Palmer	<i>Amaranthus palmeri</i>	C
Amaranth, Powell	<i>Amaranthus powellii</i>	C
Bedstraw, catchweed	<i>Galium aparine</i>	PC
Beggarweed, Florida	<i>Desmodium tortuosum</i>	C
Buckwheat, wild	<i>Polygonum convolvulus</i>	C

Common Name	Scientific Name	Weed Rating <sup>1</sup>
Buffalobur	<i>Solanum rostratum</i>	C
Carpeweed	<i>Mollugo verticillata</i>	C
Chickweed, common	<i>Stellaria media</i>	C
Cocklebur, common	<i>Xanthium strumarium</i>	C <sup>2</sup>
Deadnettle, purple	<i>Lamium purpureum</i>	C
Devil's-claw	<i>Proboscidea louisianica</i>	C
Galinsoga	<i>Galinsoga parviflora</i>	C
Henbit	<i>Lamium amplexicaule</i>	C
Horseweed (marestail)	<i>Conyza canadensis</i>	C
Jimsonweed	<i>Datura stramonium</i>	C
Kochia	<i>Kochia scoparia</i>	C
Lambsquarters, common	<i>Chenopodium album</i>	C
Mallow, Venice	<i>Hibiscus trionum</i>	C
Morningglory, ivyleaf/entireleaf	<i>Ipomoea hederacea</i>	C <sup>2</sup>
Mustard, wild	<i>Brassica kaber</i>	C
Nightshade, black	<i>Solanum nigrum</i>	C
Nightshade, eastern black	<i>Solanum ptycanthum</i>	C
Nightshade, hairy	<i>Solanum sarrachoides</i>	C
Pigweed, redroot	<i>Amaranthus retroflexus</i>	C
Pigweed, smooth	<i>Amaranthus hybridus</i>	C
Puncturevine	<i>Tribulus terrestris</i>	C
Purslane, common	<i>Portulaca oleracea</i>	C
Pusley, Florida	<i>Richardia scabra</i>	C
Radish, wild	<i>Raphanus raphanistrum</i>	C
Ragweed, common	<i>Ambrosia artemisiifolia</i>	C
Ragweed, giant	<i>Ambrosia trifida</i>	C
Sesbania, hemp	<i>Sesbania exaltata</i>	C
Shepherd's-purse	<i>Capsella bursa-pastoris</i>	C
Sicklepod	<i>Cassia obtusifolia</i>	C
Sida, prickly	<i>Sida spinosa</i>	PC
Smartweed, ladysthumb	<i>Polygonum persicaria</i>	C
Smartweed, Pennsylvania	<i>Polygonum pensylvanicum</i>	C
Sunflower, common	<i>Helianthus annus</i>	PC
Thistle, Russian	<i>Salsola tragus</i>	C
Velvetleaf	<i>Abutilon theophrasti</i>	C



Common Name	Scientific Name	Weed Rating <sup>1</sup>
Waterhemp, common	<i>Amaranthus rudis</i>	C
Waterhemp, tall	<i>Amaranthus tuberculatus</i>	C
<b>Grass Weeds</b>		
Barnyardgrass	<i>Echinochloa crus-galli</i>	C
Crabgrass	<i>Digitaria</i> spp.	C
Crowfootgrass	<i>Dactyloctenium aegyptium</i>	C
Cupgrass, prairie	<i>Eriochloa contracta</i>	C
Cupgrass, Southwestern	<i>Eriochloa gracilis</i>	C
Cupgrass, woolly	<i>Eriochloa villosa</i>	PC
Foxtail, giant	<i>Setaria faberi</i>	C
Foxtail, green	<i>Setaria viridis</i>	C
Foxtail, robust (purple, white)	<i>Setaria</i> spp.	C
Foxtail, yellow	<i>Setaria pumila</i>	C
Goosegrass	<i>Eleusine indica</i>	C
Johnsongrass, seedling	<i>Sorghum halepense</i>	PC
Millet, foxtail	<i>Setaria italica</i>	C
Millet, wild proso	<i>Panicum miliaceum</i>	PC
Panicum, Texas	<i>Panicum texanum</i>	PC
Rice, red	<i>Oryza sativa</i>	C
Sandbur, field	<i>Cenchrus incertus</i>	PC
Shattercane	<i>Sorghum bicolor</i>	PC
Signalgrass, broadleaf	<i>Brachiaria platyphylla</i>	C <sup>2</sup>
Signalgrass, narrowleaf	<i>Brachiaria piligera</i>	C
Sprangletop, red	<i>Leptochloa filiformis</i>	C
Starbur, bristly	<i>Acanthospermum hispidum</i>	C
Witchgrass	<i>Panicum capillare</i>	C
<b>Sedges</b>		
Nutsedge, Yellow	<i>Cyperus esculentus</i>	C

<sup>1</sup>C = Control, PC = Partial Control

<sup>2</sup>May require a tank mix partner (e.g. atrazine) for control of heavy populations

Thoroughly till soil or make an application of a burndown herbicide to control emerging weeds. Plant crop immediately after tillage.

If a significant rainfall does not occur within 7 days after application, weed control may be decreased. If irrigation is available, apply ½ to 1 inch of water. If irrigation is not available, a uniform shallow cultivation is advised as soon as weeds emerge.

**Table 2. Weeds Controlled or Partially Controlled by Early Postemergence Applications of Acuron Herbicide**

Common Name	Scientific Name	Weed Rating <sup>1</sup>
<b>Broadleaf Weeds</b>		
Amaranth, Palmer	<i>Amaranthus palmeri</i>	C
Amaranth, Powell	<i>Amaranthus powellii</i>	C
Bedstraw, catchweed	<i>Galium aparine</i>	PC
Beggarweed, Florida	<i>Desmodium tortuosum</i>	C
Buckwheat, wild	<i>Polygonum convolvulus</i>	C
Buffalobur	<i>Solanum rostratum</i>	C
Carpetweed	<i>Mollugo verticillata</i>	C
Chickweed, common	<i>Stellaria media</i>	C
Cocklebur, common	<i>Xanthium strumarium</i>	C
Dandelion	<i>Taraxacum officinale</i>	PC
Deadnettle, purple	<i>Lamium purpureum</i>	C
Devil's-claw	<i>Proboscidea louisianica</i>	C
Galinsoga	<i>Galinsoga parviflora</i>	C
Hemp	<i>Cannabis sativa</i>	C
Henbit	<i>Lamium amplexicaule</i>	C
Horsenettle	<i>Solanum carolinense</i>	C
Horseweed (marestail)	<i>Conyza canadensis</i>	C
Jimsonweed	<i>Datura stramonium</i>	C
Kochia	<i>Kochia scoparia</i>	C
Lambsquarters, common	<i>Chenopodium album</i>	C
Mallow, Venice	<i>Hibiscus trionum</i>	C
Marestail	<i>Hippuris vulgaris</i>	C
Morningglory, ivyleaf/entireleaf	<i>Ipomoea hederacea</i>	C
Mustard, wild	<i>Brassica kaber</i>	C
Nightshade, black	<i>Solanum nigrum</i>	C
Nightshade, eastern black	<i>Solanum ptycanthum</i>	C
Nightshade, hairy	<i>Solanum sarachoides</i>	C
Pigweed, redroot	<i>Amaranthus retroflexus</i>	C
Pigweed, smooth	<i>Amaranthus hybridus</i>	C
Pokeweed	<i>Phytolacca americana</i>	C
Potatoes, volunteer	<i>Solanum spp.</i>	C
Purslane, common	<i>Portulaca oleracea</i>	C

Common Name	Scientific Name	Weed Rating <sup>1</sup>
Pusley, Florida	<i>Richardia scabra</i>	C
Radish, wild	<i>Raphanus raphanistrum</i>	C
Ragweed, common	<i>Ambrosia artemisiifolia</i>	C
Ragweed, giant	<i>Ambrosia trifida</i>	C
Sesbania, hemp	<i>Sesbania exaltata</i>	C
Shepherd's-purse	<i>Capsella bursa-pastoris</i>	C
Sida, prickly	<i>Sida spinosa</i>	C
Smartweed, ladysthumb	<i>Polygonum persicaria</i>	C
Smartweed, Pennsylvania	<i>Polygonum pennsylvanicum</i>	C
Sunflower, common	<i>Helianthus annuus</i>	C
Thistle, Canada	<i>Cirsium arvense</i>	C
Velvetleaf	<i>Abutilon theophrasti</i>	C
Waterhemp, common	<i>Amaranthus rudis</i>	C
Waterhemp, tall	<i>Amaranthus tuberculatus</i>	C
<b>Grass Weeds</b>		
Barnyardgrass	<i>Echinochloa crus-galli</i>	PC <sup>2</sup>
Crabgrass, large	<i>Digitaria sanguinalis</i>	C <sup>2</sup>
Foxtail, giant	<i>Setaria faberii</i>	PC <sup>2</sup>
Signalgrass, broadleaf	<i>Brachiaria platyphylla</i>	C <sup>2</sup>

<sup>1</sup>C = Control, PC = Partial Control

<sup>2</sup>Apply before the weed exceeds 2 inches in height

## ROTATIONAL CROPS

When Acuron Herbicide is applied as directed on this label, follow the crop rotation intervals in Table 3. If Acuron Herbicide is tank mixed with other products, follow the most restrictive product's crop rotation interval. It is the pesticide user's responsibility to ensure that all products are registered for the intended use. Read and follow the applicable restrictions and limitations and directions for use on all product labels involved in tank mixing. Users must follow the most restrictive directions for use and precautionary statements of each product in the tank mixture.

Do not rotate to food or feed crops other than those listed on this label.

**Table 3. Time Interval Between Acuron Herbicide Application and Replanting or Planting of Rotational Crop**

Crop	Replant/Rotational Interval
Field corn Seed corn	Anytime <sup>1</sup>

Silage corn Sweet corn Yellow popcorn	
Small grain cereals including wheat, barley and rye	4 Months
Cotton Dry beans <sup>2</sup> Peanuts Potato Rice Soybeans <sup>3,4</sup> Sorghum (all types)	10 Months <sup>5,6</sup>
All other rotational crops	18 Months

<sup>1</sup>Do not apply more than 3 qt of Acuron Herbicide per acre per year.

<sup>2</sup>This rotational interval applies only to areas west of US highway 83 in the states of Colorado and Nebraska: If Acuron Herbicide was applied to ground that was under center pivot irrigation and the soil pH is greater than 6.5, dry beans can be planted 10 months following application.

<sup>3</sup>Injury may occur to soybeans planted the year following application on soils having a calcareous surface layer if additional atrazine or atrazine-containing products are used.

<sup>4</sup>In eastern parts of the Dakotas, KS, western MN, and NE, do not rotate to soybeans for 18 months following application if the combined atrazine rate applied was more than 2.0 lb ai/A, or equivalent band application rate, or soybean injury may occur.

<sup>5</sup>If applied after June 1, rotating to crops other than corn (all types) may result in crop injury.

<sup>6</sup>In the High Plains and Intermountain areas of the West, where rainfall is sparse and erratic or where irrigation is required, use only when corn (all types) or sorghum is to follow corn, or a crop of untreated corn (all types) or sorghum is to precede other rotational crops.

## Cover Crops

A cover crop can be an important tool for the overall farm cropping system. Cover crops are planted for conservation purposes, soil erosion control, soil health improvement, water quality improvement and weed management. A cover crop can be a single crop or a combination of crops, including grasses and/or broadleaf crops.

After harvest of an Acuron Herbicide treated crop, planting of a cover crop is allowed provided the cover crop is not grazed or fed to livestock nor harvested for food. Terminate the cover crop through natural causes such as frost or intentional termination by herbicide application, crimping, rolling, tillage or cutting.

All possible cover crops or cover crop combinations have not been tested for crop safety to Acuron Herbicide. Before planting the cover crop, determine the level of crop safety for the intended cover crops by conducting a field bioassay. Refer to the **Field Bioassay for Cover Crops** section below for instructions.

## Field Bioassay for Cover Crops

A field bioassay is a method of determining if herbicide residues are present in the soil at concentrations high enough to adversely affect crop growth.

Conduct the field bioassay by planting several strips of the desired cover crop across the field which has been previously treated with Acuron Herbicide. Plant the cover crop strips perpendicular to the direction of the Acuron Herbicide application. The strips should be located so that all the different field conditions are encountered, including differences in field terrain, soil texture, organic matter, pH, and drainage.

If the cover crop does not show adverse effects such as crop injury and/or stand reduction, the field can be planted to this cover crop. If injury and/or stand reduction are visible, wait two to four weeks for further herbicide degradation to occur and repeat the bioassay. Alternatively, select a different cover crop and repeat the bioassay. Only plant cover crops that show acceptable crop safety in the field bioassay.

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## APPLICATION PROCEDURES

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### ADJUVANTS

When an adjuvant is to be used with this product, the use of an adjuvant that meets the standards of the Chemical Producers and Distributors Association (CPDA) adjuvant certification program is recommended.

Where Acuron Herbicide is applied after the corn has emerged, a non-ionic surfactant (NIS) at 0.25% v/v (1 qt/100 gal) may be used. In addition to NIS, a spray grade ammonium sulfate (AMS) at 8.5-17.0 lb/100 gallons of water may also be used. When using liquid AMS products, use a rate that delivers an AMS equivalent of 8.5-17.0 lb/100 gallons of water. The use of crop oil concentrate (COC) may result in temporary crop injury. Do not use methylated seed oil (MSO) or urea ammonium nitrate (UAN) with Acuron Herbicide when applied alone to emerged corn, or when Acuron Herbicide is applied as a postemergence tank mixture with other products, unless directed for a specific tank mix on this label or as part of a supplemental Acuron Herbicide label. Any of these adjuvants may be used at a preemergence or preplant timing, i.e. where the corn crop has not yet emerged to increase burndown activity on existing weeds. Do not apply Acuron Herbicide to emerged sweet corn or yellow popcorn or severe crop injury may occur.

For Acuron Herbicide tank mixtures with Ignite® or Liberty® Herbicides applied to emerged field corn (LibertyLink® hybrids only), AMS may be added as directed on the Ignite or Liberty label. However, AMS must be the only adjuvant added to this tank mixture, or severe crop injury may occur. It is the pesticide user's responsibility to ensure that all products are registered for the intended use. Read and follow the applicable restrictions and limitations and directions for use on all product labels involved in tank mixing. Users must follow the most restrictive directions for use and precautionary statements of each product in the tank mixture.



**Sprinkler Irrigation:** Do not apply Acuron Herbicide by sprinkler irrigation. Use a sprinkler system only to incorporate Acuron Herbicide after application. After Acuron Herbicide has been applied, a sprinkler irrigation system set to deliver ½-1 inch of water may be used to incorporate the product. Using more than 1 inch of water could result in reduced performance. On sandy soil low in organic matter, use no more than ½ inch of water. Do not use flood irrigation to apply or incorporate Acuron Herbicide.

## FERTILIZER IMPREGNATION

Acuron Herbicide may be impregnated or coated onto dry bulk fertilizers including ammonium phosphate-sulfate, ammonium sulfate (AMS), diammonium phosphate (DAP), monoammonium phosphate (MAP), potash (potassium chloride), potassium sulfate, urea, or blends of these dry bulk fertilizer types.

When applying Acuron Herbicide on dry bulk fertilizer, follow all directions for use and precautions on the product label regarding target crops, application rate, timing of application and all precautions and restrictions.

All individual state regulations relating to dry bulk granular fertilizer blending, registration, labeling, and application are the responsibility of the mixer and applicator.

Apply a minimum of 200 lb of dry bulk fertilizer impregnated with Acuron Herbicide at the specified broadcast rate per acre. For best results, apply the mixture uniformly to the soil with properly calibrated equipment immediately after blending. Uniform application of the blended fertilizer/herbicide mixture is essential to prevent possible crop injury and achieve weed control. Non-uniform application will result in unsatisfactory weed control. In areas where tillage is practiced, a shallow incorporation of the blended fertilizer/herbicide mixture is advised for improved weed control.

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Calculate amount of Acuron Herbicide needed by the following formula:

$$\frac{2,000}{\text{lb of fertilizers per acre}} \times \frac{\text{qt/A of Acuron Herbicide}}{1} = \frac{\text{qt of Acuron Herbicide per ton of fertilizer}}{1}$$


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## Blended Mixing Instructions

Prepare the fertilizer/herbicide mixture by using any closed drum, belt, ribbon, or other commonly used dry bulk fertilizer blender. Nozzles used to spray Acuron Herbicide onto the fertilizer must be placed to provide uniform spray coverage. Care must be taken to aim the spray directly onto the fertilizer and avoid spraying the walls of the blender.

If the fertilizer/herbicide blend is too wet for uniform application, adding a drying agent is advised. Add the drying agent slowly to the fertilizer/herbicide blend until the mixture is suitable for uniform application. The amount of drying agent needed will depend on fertilizer type, Acuron Herbicide application rate and amount of fertilizer used.

Apply the fertilizer/herbicide blend immediately following impregnation.

### **Pneumatic (Compressed Air) Application:**

Acuron Herbicide may be applied through pneumatic applicators, whether the fertilizer/herbicide mixture is blender-mixed or on-board fertilizer impregnation system.

Acuron Herbicide must not be mixed with any other liquid or dry material in on-board fertilizer impregnation system tanks. Use high quality fertilizer with a minimum of fines when applying Acuron Herbicide with on-board impregnation equipment.

Drying agents are not advised for use with on-board impregnation systems.

### **Precautions**

- (1) To avoid potential for explosion, do not impregnate Acuron Herbicide onto ammonium nitrate, potassium nitrate, or sodium nitrate either alone or in blends with other fertilizers.
- (2) Do not impregnate Acuron Herbicide onto single super phosphate or triple superphosphate fertilizers.
- (3) Do not impregnate Acuron Herbicide on straight unadulterated agricultural limestone, since absorption will not be achieved.

### **CULTIVATION**

Should weeds develop; a shallow cultivation or rotary hoeing will generally result in improved weed control. If Acuron Herbicide was incorporated, cultivate less than half the depth of incorporation.

If cultivation is necessary due to soil crusting, compaction, or escaped weeds, adjust equipment to run shallow and minimize soil movement. This will decrease the possibility of diluting or moving the herbicide from the weed control zone.

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### **SPRAY EQUIPMENT**

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#### **Ground Application**

Spray nozzles should be uniformly spaced, the same size and type, and should provide accurate and uniform application. Use spray nozzles that provide medium to coarse droplet size to avoid drift yet provide good coverage. Ensure that all in-line strainer and nozzle screens in the sprayer are 50-mesh or coarser. Use a pump that can maintain the manufacturer's recommended pressure at the nozzles and provide proper agitation within the tank to keep the product dispersed. Lower pressures may be used with extended range or drift reduction nozzles as long as adequate coverage is maintained. Always ensure that agitation is maintained until spraying is completed, even if stopped for brief periods of time. If the agitation is stopped for more than 5 minutes, re-suspend the spray solution by running on full agitation prior to spraying.

**Preemergence:** Apply in a spray volume of 10-80 gal/A.

**Early Postemergence:** Good weed coverage is essential for optimum weed control. Boom height for broadcast over-the-top applications must be based on the height of the crop – at least 15 inches above the crop canopy, but only high enough to give uniform coverage. Apply in a spray volume of 10-30 gal/A. When weed foliage is dense, use a minimum spray volume of 20 gal/A. Flat fan nozzles of 80° or 110° are recommended for optimum postemergence coverage. Do not use floodjet nozzles or controlled droplet application equipment for postemergence applications. Nozzles may be angled forward 45° to enhance penetration of the crop and provide better coverage.

### **Aerial Prohibition**

Do not apply by air.

### **Spray Drift**

Do not apply when weather conditions may cause drift to nontarget areas. Drift may result in injury to adjacent crops and vegetation. To avoid spray drift, DO NOT apply when the wind speed is greater than 10 mph or during periods of temperature inversions.

AVOIDING SPRAY DRIFT AT THE APPLICATION SITE IS THE RESPONSIBILITY OF THE APPLICATOR.

The interaction of equipment and weather related factors determine the potential for spray drift. The applicator is responsible for considering these factors when making a decision.

### **Information on Droplet Size**

The most effective way to reduce spray drift potential is to apply large droplets. Use only nozzles producing medium to ultra coarse droplets. Do not use nozzles producing fine droplets.

### **Controlling Droplet Size**

- **Volume** - Use high flow rate nozzles to apply the highest practical spray volume. Nozzles with higher rated flows produce larger droplets.
- **Pressure** - Do not exceed the nozzle manufacturer's recommended pressures. For many nozzle types, lower pressure produces larger droplets. When higher flow rates are needed, use higher rate nozzles instead of increasing pressure.
- **Number of Nozzles** - Use the minimum number of nozzles that provide uniform coverage.



## **Application Height**

Applications must be made at the lowest height above the target area that still provides uniform coverage of the target. Making applications at the lowest yet effective height reduces exposure of droplets to wind.

## **Wind**

Drift potential is lowest when wind speeds are 10 mph or less. However, many factors, including droplet size, pressure, and equipment type determine drift potential at any given wind speed. **Note:** Local terrain can influence wind patterns.

Leave a 25-foot buffer downwind of the application to avoid drift to non-target areas. This buffer may be untreated corn rows or field border species maintained for this purpose.

## **Temperature Inversions**

Applications must not occur during a temperature inversion because drift potential is high. Temperature inversions restrict vertical air mixing, which causes small suspended droplets to remain in a concentrated cloud. This cloud can move in unpredictable directions due to the light variable winds common during inversions. Temperature inversions are characterized by increasing temperatures with altitude and are common on nights with limited cloud cover and light to no wind. They begin to form as the sun sets and often continue into the morning. Their presence can be indicated by ground fog; however, if fog is not present, inversions can also be identified by the movement of smoke from a ground source or an aircraft smoke generator. Smoke that layers and moves laterally in a concentrated cloud (under low wind conditions) indicates an inversion, while smoke that moves upward and rapidly dissipates, indicates good vertical air mixing.

## **Non-Target Areas**

Do not apply this pesticide when the product may drift to non-target areas (i.e. residential areas, bodies of water, known habitat for threatened or endangered species, non-target crops).

## **Cleaning Equipment After Application**

Special attention must be given to cleaning equipment before spraying a crop other than corn. Mix only as much spray solution as needed.

1. Flush tank, hoses, boom, and nozzles with clean water.
2. Prepare a cleaning solution of 1 gal of household ammonia per 25 gal of water. Many commercial spray tank cleaners may be used.
3. Use a pressure washer to clean the inside of the spray tank with this solution.

Take care to wash all parts of the tank, including the inside top surface. If a pressure washer is not available, completely fill the sprayer with the cleaning solution to ensure contact of the cleaning solution with all internal surfaces of the tank and plumbing. Start agitation in the sprayer and thoroughly recirculate the cleaning solution for at least 15 minutes. Remove all visible deposits from the spraying system.

4. Flush hoses, spray lines, and nozzles for at least 1 minute with the cleaning solution.
5. Dispose of rinsate from steps 1-3 in an appropriate manner.
6. Repeat steps 2-5.
7. Remove nozzles, screens, and strainers and clean separately in the ammonia solution after completing the above procedures.
8. Rinse the complete spraying system with clean water.

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## MIXING PROCEDURES

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### CARRIER

**Preemergence Applications:** Either clean water or liquid fertilizers, excluding suspension fertilizers, may be used as carriers for preemergence applications. If fluid fertilizers are used, a compatibility test must be done. See Compatibility Test section for compatibility testing. Even if Acuron Herbicide is physically compatible with a fluid fertilizer, constant agitation is necessary to maintain a uniform mixture during application.

**Postemergence Applications:** Use only clean water as the carrier when applying Acuron Herbicide after corn emergence. Do not apply Acuron Herbicide to emerged sweet corn or yellow popcorn.

### ADDING ACURON HERBICIDE TO THE SPRAY TANK

The spray tank must be clean, thoroughly rinsed and decontaminated before adding either Acuron Herbicide alone or with tank mix partners. If water is used as the carrier, use clean water.

**Acuron Herbicide Applied Alone:** When Acuron Herbicide is used alone, add the specified amount of Acuron Herbicide to the spray tank when the tank is half full of the carrier, then add the rest of the water or fluid fertilizer. Provide sufficient agitation during mixing and application to maintain a uniform mixture.

**Acuron Herbicide Applied in Tank Mixtures:** Refer to the sections on this label for specified tank mixes. Always refer to labels of the tank mix partners for mixing directions and precautions. Do not exceed label dosage rates, nor combined maximum yearly doses for atrazine, bicyclopyrone, mesotrione, or S-metolachlor. This product

cannot be mixed with any product bearing a label prohibition against such mixing. It is the pesticide user's responsibility to ensure that all products are registered for the intended use. Read and follow the applicable restrictions and limitations and directions for use on all product labels involved in tank mixing. Users must follow the most restrictive directions for use and precautionary statements of each product in the tank mixture. If a tank mixture is used, a compatibility test must be done. See Compatibility Test section for details on the procedure for such a test.

If the tank mix partner is compatible, fill the tank half full of the carrier. Start and continue agitation throughout mixing and spraying. All return lines to the spray tank must discharge below the liquid level. Prepare the components and add in the following order:

1. If a wettable powder or dry flowable formulation is used, make a slurry with water and add it slowly through the screen into the tank. Agitate during the procedure.
2. If a flowable formulation is used, add slowly through screen into the tank. Mixing and compatibility may be improved when a dry flowable is diluted with water before adding to the tank.
3. Add Acuron Herbicide.
4. Add any other tank mix products next with emulsifiable concentrates added last.
5. Add an adjuvant last, if needed.
6. Complete filling the sprayer tank and continue agitation. Apply as soon as possible after spray mixture is prepared. Do not leave mixture in spray tank overnight without agitation or unattended.

### TANK MIX COMPATIBILITY TEST

A compatibility test is advised before tank mixing to ensure compatibility of Acuron Herbicide with other pesticides. The following test assumes a spray volume of 25 gal/A. For other spray volumes, make appropriate changes in the ingredients.

**Note:** Nitrogen solutions or complete liquid fertilizers, excluding suspension fertilizers, may replace all or part of the water in the spray. Because liquid fertilizers vary, even within the same analysis, **always check compatibility with pesticide(s) before use.** Incompatibility of tank mixtures is more common with mixtures of fertilizer and pesticides.

### Test Procedure

1. Add 1.0 pt of carrier (fertilizer or water) to each of two 1 qt jars with tight lids.  
**Note:** Use the same source of water that will be used for the tank mix and conduct the test at the temperature the tank mix will be applied.

2. To one of the jars, add ¼ tsp or 1.2 milliliters of a compatibility agent approved for this use, such as Compex® or Unite® (¼ tsp is equivalent to 2.0 pt/100 gal spray). Shake or stir gently to mix.
3. To both jars, add the appropriate amount of pesticide(s) in their relative proportions based on specified label rates. If more than one pesticide is used, add them separately with dry pesticides first, flowables next, and emulsifiable concentrates last. After each addition, shake or stir gently to thoroughly mix.
4. After adding all ingredients, put lids on and tighten, and invert each jar 10 times to mix. Let the mixtures stand 15-30 minutes and then look for separation, large flakes, precipitates, gels, heavy oily film on the jar, or other signs of incompatibility. Determine if the compatibility agent is needed in the spray mixture by comparing the two jars. If either mixture separates, but can be remixed readily, the mixture can be sprayed as long as good agitation is used. If the mixtures are incompatible, test the following methods of improving compatibility: (a) slurry the dry pesticide(s) in water before addition, or (b) add ½ the compatibility agent to the fertilizer or water and the other ½ to the emulsifiable concentrate or flowable pesticide before addition to the mixture. If incompatibility is still observed, do not use the mixture.
5. After compatibility testing is complete, dispose of any pesticide wastes in accordance with the **Storage and Disposal** section in this label.

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## CROP USE DIRECTIONS

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Acuron Herbicide is to be used for preemergence use for control of most annual grass and broadleaf weeds in field corn, seed corn, silage corn, sweet corn and yellow popcorn. Acuron Herbicide may also be applied early postemergence for the control of broadleaf weeds in field corn, seed corn and silage corn. Do not apply Acuron Herbicide to emerged sweet corn or yellow popcorn or severe crop injury will occur.

See Table 1 and 2 for a list of weeds controlled.

**Acuron Herbicide Use Rate:** Determine the soil organic matter content of the field on which Acuron Herbicide is to be applied and then refer to Table 4 to determine application rate. On soils with greater than 10% organic matter, Acuron Herbicide activity may be affected resulting in reduced or poor weed control.

**Table 4: Acuron Herbicide Application Rates<sup>1</sup>**

Soil Organic Matter Content	Application rate <sup>2,3</sup>
<3%	2.5 qt/A
≥3%	3.0 qt/A

<sup>1</sup>These rates apply to all application method timings.

<sup>2</sup>Do not exceed 3.0 qt/A of Acuron Herbicide per year.

<sup>3</sup>For extended residual or control of heavy weed infestations, 3.0 qt/A of Acuron Herbicide may be applied to soils with <3% OM.

## ACURON HERBICIDE APPLIED ALONE

**Early Preplant:** Acuron Herbicide may be applied up to 28 days prior to planting.

**Preemergence Surface:** Acuron Herbicide may be applied to the soil surface as a broadcast or banded application.

**Early Postemergence:** Acuron Herbicide may be applied after corn (for grain, seed, or silage) emergence. See the "Adjuvants" section of this label for specific directions. Do not apply early postemergence to corn in liquid fertilizer or severe crop injury may occur. Apply this treatment to small broadleaf weeds (less than 3 inches tall). Occasional corn leaf burn may result, but this will not affect later growth or corn yield. Do not apply Acuron Herbicide to emerged sweet corn or yellow popcorn or severe crop injury may occur. Postemergence applications to corn must be made before crop reaches 12 inches in height.

This product will not provide consistent control of emerged grass weeds. For control of emerged grass weeds a grass herbicide tank mix may be required (see tank mix section of this label).

If Bicep II Magnum®, Bicep Lite II Magnum®, AAtrex (atrazine), Dual Magnum®, or Dual II Magnum® alone or in tank mixtures have been applied early preplant, preplant surface, preplant incorporated, or preemergence, limit the Acuron Herbicide early post application to not exceed a total of 2.5 lb of active ingredient of atrazine or 3.75 lb of S-metolachlor active per acre, or illegal residues may result.

**Split Application:** Acuron Herbicide may be applied as a split application in corn (for grain, seed, or silage). For a split application program, apply  $\frac{1}{2}$  to  $\frac{3}{4}$  of the labeled rate of Acuron Herbicide prior to crop emergence followed by a second Acuron Herbicide application at  $\frac{1}{3}$  to  $\frac{1}{2}$  of the labeled rate as a post application after corn emergence. The total amount of Acuron Herbicide applied in the split application program cannot exceed 3.0 qt/A per year. Do not make more than two Acuron Herbicide applications per year. Do not make the second application within 14 days of the first application. Refer to the **Early Postemergence** section above for instructions on postemergence applications.

## ACURON HERBICIDE TANK MIX COMBINATIONS

### Use of Spray Adjuvants with Tank Mixtures

When Acuron Herbicide is used as a preemergence herbicide, and before weeds have emerged, spray adjuvants have little or no influence on performance. However, in burndown situations where the weeds have emerged and the corn has not, an adjuvant may be used with Acuron Herbicide applied alone or when applied in tank mixture with a burndown herbicide as allowed on the individual product labels. Use only those adjuvants approved for agricultural crop use. See the "Adjuvants" section under "Application Procedures" for further instructions.



## Burndown Combinations for Reduced Tillage Situations

In reduced or no-till corn and before the crop has emerged, Acuron Herbicide tank mixes with Gramoxone, Roundup or glyphosate will burndown emerged weeds. For best results, apply tank mixes of Acuron Herbicide plus Gramoxone to emerged weeds that are 1-6 inches in height. Consult the Gramoxone, Roundup or glyphosate product label for further information on weeds controlled and application timings.

## Preemergence Tank Mixtures Applied Before Corn Emergence

The tank mix partners listed in Table 5 may be used in either conventional, reduced, or no-till systems and be applied by the same methods and at the same timings as Acuron Herbicide unless otherwise specified in the tank mix product label. Follow all tank mix product labels for use rates and restrictions. Perform a compatibility test prior to spraying the tank mix application. Tank mixtures with 2,4-D are allowed, but must only be done with extreme care with regard to ensuring compatibility before mixing a load. 2,4-D products, and even batches, vary greatly with regard to compatibility and must be checked each time a water or carrier source, water or carrier temperature, product source, or tank mixture recipe is changed.

**Table 5: Tank Mixtures for Preemergence Applications with Acuron Herbicide**

Tank Mix	Rate (Max)	Objective
AAtrex or other solo Atrazine products	0.5-1.25 lb ai/A	Improved broadleaf and grass weed control
Princep®	0.5-1.3 lb ai/A	Improved broadleaf and grass weed control
Gramoxone brands	See product label	Burndown existing weeds
Roundup or other glyphosate brands	See product label	Burndown existing weeds
Warrior brands	See product label	To control insects, such as cutworm

## Early Postemergence Tank Mixtures Applied After Corn Emergence

The tank mix partners listed in Table 6 may be used in conventional, reduced or no-till systems and can be applied by the same methods and at the same timings as Acuron Herbicide unless otherwise specified in the tank mix product label. Follow all tank mix product labels for use rates and restrictions. Perform a compatibility test prior to spraying the tank mix application. Do not apply Acuron Herbicide tank mixtures to emerged sweet corn or yellow popcorn.

**Table 6: Tank Mixtures for Early Postemergence Weed Control with Acuron Herbicide**

Tank Mix <sup>1</sup>	Rate (Max)	Objective
AAtrex or other solo Atrazine products	0.5-1.25 lb ai/A	Improved broadleaf and annual grass weed control and weed resistance

		management
Warrior brands	As per product label	To control insects, such as cutworm
Accent® Q	As per product label	Emerged grass control
Basis® brands	As per product label	Emerged grass control
Status®	As per product label	Improved broadleaf control and weed resistance management
Steadfast® Q	As per product label	Emerged grass control

<sup>1</sup>Consult the “**Adjuvant**” section of this label for directions when applying Acuron Herbicide alone or in tank mixture to emerged corn (for grain, seed, or silage).

### **Acuron Herbicide Programs with Glyphosate in Roundup Ready or Agrisure® GT Corn**

Acuron Herbicide may be applied early postemergence at a rate of 1.5-3.0 qt/A in tank mixture with a solo glyphosate product (e.g. Roundup) that is registered for use over-the-top in Roundup Ready or Agrisure GT field corn. To minimize weed competition with the crop, target the application of this mixture to weeds in the 1 to 2 inch range. Do not apply this mixture to corn that is greater than 12 inches tall. If the glyphosate product has a built-in adjuvant system (i.e. the product label does not ask for additional adjuvant), only spray-grade ammonium sulfate (AMS) at 8.5 lb/100 gal may be added to this mixture. If the glyphosate product label calls for an adjuvant in addition to AMS, add a non-ionic surfactant (NIS) at 0.25% v/v and AMS to this spray mixture. Do not add urea ammonium nitrate (UAN), crop oil concentrate (COC), or methylated seed oil (MSO) type adjuvants to these mixtures, or crop injury may occur. Follow all directions for use and restrictions on the glyphosate product label.

Alternatively, Acuron Herbicide may be applied preemergence at a rate down to 2 qt/A as part of a two-pass weed control system when followed by a postemergence application of a glyphosate based product in Roundup Ready or Agrisure GT corn. When used in this way, Acuron Herbicide will provide reduced competition of the weeds listed in Table 1 for a period of 30 or more days, thus improving the timing flexibility and effectiveness of the glyphosate based product application. Follow all directions for use and restrictions on the glyphosate product label.

Acuron Herbicide may be applied preemergence at 1.25-1.5 qt/A as part of a two-pass weed control system when followed by Halex® GT postemergence in Roundup Ready or Agrisure GT corn. Follow all directions for use and restrictions on each product label.

### **Acuron Herbicide Programs for LibertyLink Corn**

Acuron Herbicide may be applied early postemergence at a rate of 1.5-2.0 qt/A in tank mixture with Ignite or Liberty and applied over-the-top in field corn designated as LibertyLink. To minimize weed competition with the crop, target the application of this mixture to weeds in the 1 to 2 inch range. Do not apply this mixture to corn that is greater than 12 inches tall. Ammonium sulfate (AMS) may be added as a spray adjuvant as directed on the Ignite or Liberty label. However, AMS must be the only adjuvant added to this tank mixture. Do not add urea ammonium nitrate (UAN), crop oil

concentrate (COC), non-ionic surfactants (NIS), or methylated seed oil (MSO) type adjuvants to these mixtures, or crop injury may occur. Follow all directions for use and restrictions on the Ignite or Liberty product label.

Alternatively, Acuron Herbicide may be applied preemergence at a rate down to 2 qt/A as part of a two-pass weed control system when followed by a postemergence application of Ignite or Liberty in field corn designated as LibertyLink. When used in this way, Acuron Herbicide will provide reduced competition of the weeds listed in Table 1 for a period of 30 or more days, thus improving the timing flexibility and effectiveness of the Ignite or Liberty application. Follow all directions for use and restrictions on the Ignite or Liberty product label.

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## **STORAGE AND DISPOSAL**

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Do not contaminate water, food, or feed by storage or disposal.

### **Pesticide Storage**

Keep container tightly closed when not in use. Do not store near seeds, fertilizers, or foodstuffs. Keep away from heat and flame. Ground water contamination may be reduced by diking and flooring of permanent liquid bulk storage sites with an impermeable material.

### **Pesticide Disposal**

Open dumping is prohibited. Waste resulting from the use of this product may be disposed of on site or at an approved waste disposal facility. Rinse spray equipment. Pesticide wastes are acutely hazardous. Improper disposal of excess pesticide, spray mixture, or rinsate is a violation of Federal Law. If these wastes cannot be disposed of as described above, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste Representative at the nearest EPA Regional Office for guidance.

### **Container Handling [equal to or less than 5 gallons]**

**Non-refillable container.** Do not reuse or refill this container. Offer for recycling if available. Triple rinse container (or equivalent) promptly after emptying. Triple rinse as follows: empty the remaining contents into application equipment of a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container  $\frac{1}{4}$  full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. Then offer for recycling if available or puncture and dispose of in a sanitary landfill, or by incineration, or, by other procedures allowed by state and local authorities.

For minor spills, leaks, etc. follow all precautions on this label and clean up immediately. Take special care to avoid contamination of equipment and facilities during cleanup procedures and disposal of wastes. In the event of a major spill, fire, or other emergency, call 1-800-888-8372, day or night. If the container is damaged and leaking or material has been spilled follow these procedures:



1. Cover spill with absorbent material.
2. Sweep into disposal container.
3. Wash area with detergent and water and follow with clean water rinse.
4. Do not allow to contaminate water supplies.
5. Dispose of according to instructions.

#### **Container Handling [greater than 5 gallons]**

**Refillable container.** Refill this container with pesticide only. Do not reuse this container for any other purpose. Cleaning the container before final disposal is the responsibility of the person disposing of the container. Cleaning before refilling is the responsibility of the refiller. To clean container before final disposal, empty the remaining contents from this container into application equipment or mix tank. Fill the container about 10 percent full with water. Agitate vigorously or recirculate water with the pump for 2 minutes. Pour or pump rinsate into application equipment or rinsate collection system. Repeat this rinsing procedure two more times. Then offer for recycling if available or puncture and dispose of in a sanitary landfill, or by incineration, or, by other procedures allowed by state and local authorities.

For minor spills, leaks, etc. follow all precautions on this label and clean up immediately. Take special care to avoid contamination of equipment and facilities during cleanup procedures and disposal of wastes. In the event of a major spill, fire, or other emergency, call 1-800-888-8372, day or night. If the container is damaged and leaking or material has been spilled follow these procedures:

1. Cover spill with absorbent material.
2. Sweep into disposal container.
3. Wash area with detergent and water and follow with clean water rinse.
4. Do not allow to contaminate water supplies.
5. Dispose of according to instructions.

**CONTAINER IS NOT SAFE FOR FOOD, FEED, OR DRINKING WATER.**

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AAtrex®, Acuron®, Agrisure® GT, Bicep II Magnum®, Bicep Lite II Magnum®, Callisto®, Callisto Plant Technology®, Concep®, Dual II Magnum®, Dual Magnum®, Gramoxone®, Halex® GT, Princep®, Warrior®, the ALLIANCE FRAME, the SYNGENTA Logo, and the PURPOSE ICON are Trademarks of a Syngenta Group Company.

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Roundup® and Roundup Ready® are trademarks of Monsanto Company.

Unite® is a registered trademark of HACO, Inc.

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For non-emergency information (e.g., current product information), call  
Syngenta Crop Protection at 1-800-334-9481.

Manufactured for:  
Syngenta Crop Protection, LLC  
P. O. Box 18300  
Greensboro, North Carolina 27419-8300

Acuron Herbicide 1466 MAS 0717 AMEND-E OCT2017-CL – kdy – 5/23/18  
00100-01466.20171023E.ACURON-HERBICIDE-AMEND-OCT2017-CL.pdf

## Alexander, Bewanda

---

**From:** Foderaro Amanda M USGR <amanda.M.foderaro@syngenta.com>  
**Sent:** Thursday, March 8, 2018 1:33 PM  
**To:** Kraft, Erik  
**Cc:** Alexander, Bewanda; Holloman, Rachel  
**Subject:** RE: Agency comments regarding EPA Reg. No. 100-1466  
**Attachments:** 00100-01466.20171023C.ACURON-HERBICIDE-AMEND-OCT2017-HI.PDF;  
00100-01466.20171023C.ACURON-HERBICIDE-AMEND-OCT2017-CL.PDF

Hi Erik,

Apologies for the delayed response. Please find the updated labels attached with the new changes highlighted in teal.

Below is a bit more explanation around Agrisure GT. Please let me know if there is anything else I can help with.

Agrisure GT is the Syngenta commercial brand name for the single GA21 event which confers tolerance to glyphosate. The GT in the product name actually stands for Glyphosate Tolerant. GA21 is also the same trait found in RoundUp Ready1. I think you are probably already aware but the GA21 event was deregulated by USDA in 1997 ([https://www.aphis.usda.gov/brs/aphisdocs2/97\\_09901p\\_com.pdf](https://www.aphis.usda.gov/brs/aphisdocs2/97_09901p_com.pdf)). Agrisure GT is listed on a number of EPA approved labels including, Sequence, EPA Reg. No., 100-1185 and Halex GT, EPA Reg. No., 100-1282.

Kind Regards,  
Amanda

**From:** Kraft, Erik [mailto:Kraft.Erik@epa.gov]  
**Sent:** Tuesday, March 06, 2018 8:09 AM  
**To:** Foderaro Amanda M USGR <amanda.M.foderaro@syngenta.com>  
**Cc:** Alexander, Bewanda <alexander.bewanda@epa.gov>; Holloman, Rachel <Holloman.Rachel@epa.gov>  
**Subject:** RE: Agency comments regarding EPA Reg. No. 100-1466

Amanda,

Please remove tolerance and replace with something similar to crop safety, crop sensitivity, etc. The reason is because of the confusion that the term "tolerance" has multiple meanings especially with uses with traits.

I'm ok with you leaving the tank mix names and rates.

As my previous email mentioned can you provide more info. on the Agrisure GT trait, is it a single or stacked trait, and does it contain the roundup ready trait?

Thanks  
Erik

**From:** Alexander, Bewanda  
**Sent:** Monday, March 05, 2018 9:34 AM  
**To:** Kraft, Erik <Kraft.Erik@epa.gov>  
**Subject:** FW: Agency comments regarding EPA Reg. No. 100-1466

FYI

**From:** Foderaro Amanda M USGR [mailto:[amanda.M.foderaro@syngenta.com](mailto:amanda.M.foderaro@syngenta.com)]  
**Sent:** Friday, March 2, 2018 3:04 PM  
**To:** Alexander, Bewanda <[alexander.bewanda@epa.gov](mailto:alexander.bewanda@epa.gov)>  
**Subject:** RE: Agency comments regarding EPA Reg. No. 100-1466

Hello BeWanda,

I apologize for the delay in getting this back to you. Please find the updated label attached with the recent changes highlighted in **green**. We did have a few comments in response, please see below:

- Page 17 – the use of the word “tolerance” is consistent with the language on the most recently approved Bicep II Magnum label. We would like to keep the language consistent if possible. In addition, in discussions with growers we are more likely to refer to the cover crops ability to tolerate the product versus talking about how sensitive a crop might be. If possible, we would prefer to keep the tolerance language.
- Pages 27-28 (request to replace product Brand names with Active ingredient names) – Particularly for our Tank Mix listings, the products we recommend have been tested specifically with Acuron to confirm that the formulations are compatible from a mixing perspective and that the mixed product is both efficacious for weed control and has acceptable crop safety. By listing only active ingredients and removing rates it would imply that any products that contain these active ingredients could be tank mixed which we would not be able to support from a data perspective. Listing only active ingredients would indicate that any products containing these active ingredients could be tank mixed however, as mentioned, we have only tested the specified products do not have confidence that other product formulations, not previously tested, would meet those acceptability criteria. In addition, listing only the active ingredients could add much confusion to the label because applicators and end users refer to the products by their brand name and not by the list of active ingredients contained in the product.
- Page 28 (Removal of rates from table 5 and 6) In general, Syngenta is supportive of listing “See Product Label” for Tank Mix rates where applicable and has made the requested change for Warrior Brands. However in the specific case of triazine containing products such as Aatrex and Princep the maximum rate listed are very intentional. The maximum rate for these products is listed as lower than the specified product label as an easy way to ensure that growers are staying within the single maximum rate of atrazine (2 lb per acre). As you may be aware, Syngenta is very heavily involved in all atrazine regulatory discussions so we have high visibility of what, if any, changes are made to the use rates on those labels.
- Could you clarify the request on pages 28-30 to delete Agrisure GT Corn? Agrisure GT is a commercially registered Syngenta product that is listed on a number of EPA approved labels including Sequence, EPA Reg. No., 100-1185 and Halex GT, EPA Reg. No., 100-1282. The trait, GA21, has been deregulated since 1997.
- Pages 28-30 – Ignite or Liberty have been highlighted but I am not sure what the requested change is. Could you please clarify?

Please feel free to contact me with any questions or concerns.

Kind Regards,  
Amanda Foderaro

**From:** Alexander, Bewanda [mailto:[alexander.bewanda@epa.gov](mailto:alexander.bewanda@epa.gov)]  
**Sent:** Tuesday, January 30, 2018 9:50 AM  
**To:** Foderaro Amanda M USGR <[amanda.M.foderaro@syngenta.com](mailto:amanda.M.foderaro@syngenta.com)>  
**Subject:** Agency comments regarding EPA Reg. No. 100-1466

Dear Ms. Foderaro,

Please make the identified revisions listed in the attached document and return the revised label to me.

Best Regards,

BeWanda Alexander  
FHB/RD/OPP/OCSP/EPA

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*This message may contain confidential information. If you are not the designated recipient, please notify the sender immediately, and delete the original and any copies. Any use of the message by you is prohibited.*



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
WASHINGTON, D.C. 20460

October 26, 2017

OFFICE OF CHEMICAL SAFETY  
AND POLLUTION PREVENTION

DR. JOHN ABBOTT  
SYNGENTA CROP PROTECTION, LLC  
410 SWING ROAD, PO Box 18300  
GREENSBORO, NC 27419-8300

PRODUCT NAME: ACURON HERBICIDE  
COMPANY NAME: SYNGENTA CROP PROTECTION, LLC  
OPP IDENTIFICATION NUMBER:  
EPA FILE SYMBOL: 100-1466  
EPA RECEIPT DATE: 10/24/17

SUBJECT: RECEIPT OF AMENDMENT

DEAR REGISTRANT:

The Office of Pesticide Programs has received your application for an amendment and it has passed an administrative screen for completeness.

During the initial screen we determined that the application appears to qualify for fast track review. The package will now be forwarded to the Product Manager for review to determine its acceptability for fast track status.

If you have any questions, please contact Registration Division, Risk Management Team 24, at (703) 308-9358.

Sincerely,

Front End Processing Staff  
Information Services Branch  
Information Technology & Resources Management Division



**Fee for Service**

{1010822#~

This package includes the following

- ☐ New Registration
- ☒ Amendment

☐ Studies?      ☐ Fee Waiver?

☐ volpay    % Reduction: \_\_\_\_

for Division

- ☐ AD
- ☐ BPPD
- ☒ RD

Risk Mgr. 24

Receipt No.

S-

1010822

EPA File Symbol/Reg. No.

100-1466

Pin-Punch Date:

10/24/2017

☒ This item is NOT subject to FFS action.

Action Code:

Requested:

Granted:

Amount Due: \$ \_\_\_\_\_

Parent/Child Decisions:

☒ Inert Cleared for Intended Use

☐ Uncleared Inert in Product



Reviewer: L. Patel

Date: 10/26/17

Remarks:

DOCUMENTUM

Please read instructions on reverse before completing form.

 <b>United States</b> <b>Environmental Protection Agency</b> Washington, DC 20460		<input type="checkbox"/> Registration <input checked="" type="checkbox"/> Amendment <input type="checkbox"/> Other	OPP Identifier Number
<b>Application for Pesticide - Section I</b>			
1. Company/Product Number 100-1466		2. EPA Product Manager Erik Kraft	
4. Company/Product (Name) Acuron® Herbicide		3. Proposed Classification <input checked="" type="checkbox"/> None <input type="checkbox"/> Restricted	
5. Name and Address of Applicant (Include ZIP Code) Syngenta Crop Protection, LLC P. O. Box 18300 Greensboro, NC 27419 <input type="checkbox"/> Check if this is a new address		6. <b>Expedited Review.</b> In accordance with FIFRA Section 3(c)(3) (b)(i), my product is similar or identical in composition and labeling to: EPA Reg. No. _____ Product Name _____	
<b>Section - II</b>			
<input checked="" type="checkbox"/> Amendment - Explain below. <input type="checkbox"/> Final printed labels in response to Agency letter dated _____ <input type="checkbox"/> Resubmission in response to Agency letter dated _____ <input type="checkbox"/> "Me Too" Application. <input type="checkbox"/> Notification - Explain below. <input type="checkbox"/> Other - Explain below.			
<b>Explanation:</b> Use additional page(s) if necessary. (For Section I and Section II.). Syngenta Crop Protection, LLC is herein submitting a Fast Track Label Amendment Adding Cover Crop Language, 2ee label Language for Fertilizer Impregnation and Recommendations added to Application Rates instructions.			
<b>Section - III</b>			
1. <b>Material This Product Will Be Packaged In:</b>			
Child-Resistant Packaging <input type="checkbox"/> Yes* <input checked="" type="checkbox"/> No	Unit Packaging <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Water Soluble Packaging <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	2. Type of Container <input type="checkbox"/> Metal <input checked="" type="checkbox"/> Plastic <input type="checkbox"/> Glass <input type="checkbox"/> Paper <input type="checkbox"/> Other (Specify) _____
*Certification must be submitted If "Yes"                      No. per                      If "Yes"                      No. per Unit Packaging wgt.                      Container                      Unit Packaging wgt.                      container			
3. Location of Net Contents Information <input checked="" type="checkbox"/> Label <input type="checkbox"/> Container		4. Size(s) Retail Container	
		5. Location of Label Directions <input checked="" type="checkbox"/> On Label <input type="checkbox"/> On Labeling accompanying product	
6. Manner in Which Label is Affixed to Product <input type="checkbox"/> Lithograph <input checked="" type="checkbox"/> Other <u>Pressure Sensitive</u> <input type="checkbox"/> Paper glued <input type="checkbox"/> Stenciled			
<b>Section - IV</b>			
1. Contact Point (Complete items directly below for identification of individual to be contacted, if necessary, to process this application.)			
Name Amanda Foderaro		Title Regulatory Specialist	
		Telephone No. (Include Area Code) 336-632-2098	
<b>Certification</b> I certify that the statements I have made on this form and all attachments thereto are true, accurate and complete. I acknowledge that any knowingly false or misleading statement may be punishable by fine or imprisonment or both under applicable law.			6. Date Application Received (Stamped)
2. Signature 		3. Title Regulatory Specialist <a href="mailto:amanda.M.foderaro@syngenta.com">amanda.M.foderaro@syngenta.com</a>	
4. Typed Name Amanda M. Foderaro		5. Date October 24, 2017	

EPA Form 8570-1 (Rev. 8-94) Previous editions are obsolete.

DOCUMENTUM

**PAPERWORK REDUCTION ACT NOTICE:** Public reporting burden for this collection of information is estimated to average 0.85 hour per response, including time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding the burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to Chief, Information Policy Branch, (2136), U.S. Environmental Protection Agency, 401 M Street, SW, Washington, DC 20460.

**INSTRUCTIONS:** This form is to be used for all applications for new registration, end use reregistration, amendment, resubmission, to applications for notifications, final printed labeling, reregistration, etc. In order to process an application for a new registration submitted on this form, the following material must accompany the application:

1. Certification with Respect to Citation of Data (EPA Form 8570-29). [If not exempted by 40 CFR 152.81 (b) (4)];
2. Confidential Statement of Formula (EPA Form 8570-4);
3. Formulator's Exemption Statement (EPA Form 8570-27);
4. Five copies of draft labeling;
5. Three copies of any data submitted;
6. Authorization letter where applicable;
7. Matrices where applicable.

**Submission of Labeling** - Labeling should first be submitted in the form of draft labels with all applications for new registration. Such draft labels may be in the form of typed label text on 8.5 x 11 inch paper for submission or a mockup of the proposed label. If prepared for mockup, it should be constructed in a way as to facilitate storage in an 8.5 x 11 inch file. Mockup labels significantly smaller than 8.5 x 11 inches should be mounted on 8.5 x 11 inch paper for submission.

**Submission of Data** - Data submitted in support of this application must be submitted in accordance with PR Notice 86-5.

**SPECIFIC INSTRUCTIONS:** Please read the instructions listed below before completing this application. First determine the type of registration action, listed in Block A, for which you are submitting this application. For applications submitted in connection with Now Registration actions, Sections I, III, and IV must be completed by the applicant. For applications submitted in connection with amended reregistration actions, resubmissions, notifications, reregistrations, etc., Sections I, II, and IV must be completed by the applicant.

**Block A** - Check the appropriate action for which you are submitting this form.

**SECTION I** - This section must be completed, as applicable, for all registration actions.

1. **Company/Product Number** - Insert your Company Number, if one has been assigned by EPA. This number may have been assigned to you as a basic registrant, a distributor, or as an establishment. If your product is registered, insert the Product Number.
2. **EPA Product Manager** - If known, fill in the name and PM number of the EPA Product Manager.
3. **Proposed Classification** - Specify the proposed classification of this product.
4. **Product Name** - Enter the complete product name of this pesticide as it will appear on the label. The name must be specific to this product only. Duplication of names is not permitted among products of the same company. Do not include any brand name or company line designations.
5. **Name and Address of Applicant** - The name of the firm or person and address shown in your application is the person or firm to whom the registration will be issued. If you are acting in behalf of another party, you must submit authorization from that party to act for them in registration matters. An applicant not residing in the United States must have an authorized agent residing in the United States to act for them in all registration matters. The name and complete mailing address of such an agent must accompany this application.
6. **Expedited Review** - FIFRA section 3 (c) 3 (B) provides for expedited review of applications for registration, or amendments to existing registrations, that are similar or identical to other pesticide products that are currently registered with the EPA. In order for your application to be eligible for expedited review, you must provide us with the EPA Registration Number and product name of the product you believe is similar to or identical to your product. The product must be similar or identical in both formulation and labeled uses.

**SECTION II** - This section must be completed for all applications submitted to amend the registration only of a currently registered product (Amendment), for a resubmission in response to an Agency letter, for notifications to the Agency, for the submission of final printed labeling, for reregistration and for any other action that pertains to a specific EPA-registered product. This section is not to be used for a new application for registration.

1. **Subject of submission** - Check the applicable block and provide the Agency letter date if appropriate. Provide a brief explanation of the purpose(s) for the submission, such as "the addition of a site, pest or crop (specify)"; "amend the Confidential Statement of Formula by..."; "reregistration submission"; "general label revision of use directions." Attach a separate page if additional space is needed.

**SECTION III** - (Packaging and Container Information) - This Section must be completed for all applications submitted in connection with now registration or applicable amendments.

1. **Type of Packaging** - Check the appropriate block if your product will be packaged in the indicated packaging types. Indicate the size of the individual packets and number per retail container.
2. **Type of Retail Container** - Indicate type of container in which product will be marketed.
3. **Location of Net Contents** - Indicate the location of the net contents information for your product.
4. **Size(s) of Retail Container** - Specify the net contents of all retail containers for your product.
5. **Location of Use Directions** - Indicate the location of the use directions for your product.
6. **Manner in which label is affixed to product** - Indicated the method product label is attached to retail container.

**SECTION IV** (Contact Point) - This Section must be completed for all applications for Registration actions, i.e., now products registration, resubmission, "me-too," reregistration, etc.

- 1-5. Self-explanatory.
6. EPA Use Only



Amanda M. Foderaro  
Regulatory Specialist - Herbicides  
Syngenta Regulatory Affairs  
(336) 632-2098 (Telephone)  
(336) 632-5688 (Fax)  
[amanda.m.foderaro@syngenta.com](mailto:amanda.m.foderaro@syngenta.com)

Syngenta Crop Protection, LLC  
P.O. Box 18300  
Greensboro, NC 27419-8300  
[www.syngenta.com](http://www.syngenta.com)

October 24, 2017

Document Processing Desk (AMEND)  
Office of Pesticide Programs (7504P)  
U.S. Environmental Protection Agency  
Room S-4900, One Potomac Yard  
2777 South Crystal Drive  
Arlington, VA 22202-4501

**Attention:** Mr. Erik Kraft, PM Team 24, Fungicide-Herbicide Branch  
Registration Division

**SUBJECT:** Acuron® Herbicide (EPA Reg. No. 100-1466)  
Fast Track Label Amendment Adding Cover Crop Language, FIFRA Section 2  
"ee" label Language for Fertilizer Impregnation and Recommendations Added  
to Application Rates Instructions

Dear Mr. Kraft:

Syngenta Crop Protection, LLC is herein submitting a revised label for Acuron Herbicide (EPA Reg. No., 100-1466). The proposed changes to the label have been listed below:

- Cover crop language added (pg 18-19)
- Clarification of Adjuvant Application Procedures (pg 19)
- FIFRA Section 2 "ee" label language around Fertilizer Impregnation and Tank Mixes added (pg 20-21)
- Application Rates instructions updated with recommendations for extended residual control or heavy weed infestations. This will allow for a 3 qt rate to be used on <3% organic material soils. Please note that the maximum rate has not changed. (pg 27 -28)
- Rate ranges listed under Acuron Herbicide Programs with Glyphosate in Glyphosate Tolerant Corn and Acuron Herbicide Programs for LibertyLink Corn were corrected. This change is being made due to an inadvertent error during the last label update. The correction to the typographical error that was proposed via Notification and approved by EPA July 25, 2017 was inadvertently made to the LibertyLink Corn section of the label instead of the Glyphosate Tolerant corn as indicated in the cover letter. This has been corrected in this proposed label amendment. (pg 30-31)
- Other administrative/formatting changes

Enclosed in support of this notification are the following documents:

- Application for Pesticide Registration (EPA Form 8570-1)
- Proposed labeling, one (1) with revisions highlighted and one (1) unmarked

#### **PRIA III**

Syngenta believes that this action qualifies as a fast-track amendment and therefore a PRIA III category is not applicable.

Thank you in advance for your attention to this fast-track label amendment. If needed, I may be reached at (336) 632-2098, [amanda.m.foderaro@syngenta.com](mailto:amanda.m.foderaro@syngenta.com) or via fax at (336) 632-5688.

Kind Regards,

Amanda M. Foderaro  
Regulatory Specialist, Herbicides

DOCUMENTED



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
WASHINGTON, DC 20460

OFFICE OF CHEMICAL SAFETY  
AND POLLUTION PREVENTION

July 25, 2017

Amanda M. Foderaro  
Regulatory Specialist, Herbicides  
Syngenta Crop Protection, LLC  
PO Box 18300  
Greensboro, NC 27419

Subject: Notification per PRN 98-10 – Minor formatting and language changes  
Product Name: Acuron Herbicide  
EPA Registration Number: 100-1466  
Application Date: 05/22/2017  
Decision Number: 531650

Dear Ms. Foderaro:

The Agency is in receipt of your Application for Pesticide Notification under Pesticide Registration Notice (PRN) 98-10 for the above referenced product. The Registration Division (RD) has conducted a review of this request for its applicability under PRN 98-10 and finds that the action requested falls within the scope of PRN 98-10.

The label submitted with the application has been stamped "Notification" and will be placed in our records.

Should you wish to add/retain a reference to the company's website on your label, then please be aware that the website becomes labeling under the Federal Insecticide Fungicide and Rodenticide Act and is subject to review by the Agency. If the website is false or misleading, the product would be misbranded and unlawful to sell or distribute under FIFRA section 12(a)(1)(E). 40 CFR 156.10(a)(5) list examples of statements EPA may consider false or misleading. In addition, regardless of whether a website is referenced on your product's label, claims made on the website may not substantially differ from those claims approved through the registration process. Therefore, should the Agency find or if it is brought to our attention that a website contains false or misleading statements or claims substantially differing from the EPA approved registration, the website will be referred to the EPA's Office of Enforcement and Compliance.

If you have any questions, you may contact Lisa Pahel at (703) 347-0459 or via email at [pahel.lisa@epa.gov](mailto:pahel.lisa@epa.gov).

Sincerely,

A handwritten signature in black ink, appearing to read "Erik Kraft", with a stylized flourish at the end.

Erik Kraft, Product Manager 24  
Fungicide and Herbicide Branch  
Registration Division (7505P)  
Office of Pesticide Programs



**RESTRICTED USE PESTICIDE  
(GROUND AND SURFACE WATER CONCERNS)**

FOR RETAIL SALE TO AND USE ONLY BY CERTIFIED APPLICATORS OR PERSONS UNDER THEIR DIRECT SUPERVISION, AND ONLY FOR THOSE USES COVERED BY THE CERTIFIED APPLICATOR'S CERTIFICATION.

THIS PRODUCT IS A RESTRICTED-USE HERBICIDE DUE TO GROUND AND SURFACE WATER CONCERNS. USERS MUST READ AND FOLLOW ALL PRECAUTIONARY STATEMENTS AND INSTRUCTIONS FOR USE IN ORDER TO MINIMIZE POTENTIAL FOR ATRAZINE TO REACH GROUND AND SURFACE WATER.

**Sale, use and distribution of this product in Nassau and Suffolk Counties in the State of New York is prohibited.**

**GROUP 5 15 27 HERBICIDES**

### **Acuron® Herbicide**

A Herbicide for Control of Annual Grass and Broadleaf Weeds in Field Corn, Seed Corn, Silage Corn, Sweet Corn and Yellow Popcorn

#### **Active Ingredients\*:**

S-Metolachlor: (CAS No. 87392-12-9).....	23.40%
Atrazine**: (CAS No. 1912-24-9).....	10.93%
Mesotrione: (CAS No. 104206-82-8).....	2.60%
Bicyclopyrone: (CAS No. 352010-68-5) .....	0.65%
Other Ingredients:	62.42%
Total:	100.00%

\*Active ingredients per gallon: Atrazine 1.0 pound, Bicyclopyrone 0.06 pounds, Mesotrione 0.24 pounds and S-metolachlor 2.14 pounds.

\*\*Atrazine with a maximum of 0.45% related triazines.

**KEEP OUT OF REACH OF CHILDREN.**

## **CAUTION**

See additional precautionary statements and directions for use on label.

EPA Reg. No. 100-1466

### **NOTIFICATION**

100-1466

The applicant has certified that no changes, other than those reported to the Agency have been made to the labeling. The Agency acknowledges this notification by letter dated:

07/25/2017

2.5 gallons  
220 gallons  
\_\_\_\_ gallons  
Net Contents

<b>FIRST AID</b>	
<b>If swallowed</b>	<ul style="list-style-type: none"> <li>• Call a Poison Control Center or doctor immediately for treatment advice.</li> <li>• Have person sip a glass of water if able to swallow.</li> <li>• Do not induce vomiting unless told to do so by a poison control center or doctor.</li> <li>• Do not give anything to an unconscious person.</li> </ul>
<b>If in eyes</b>	<ul style="list-style-type: none"> <li>• Hold eye open and rinse slowly and gently with water for 15-20 minutes.</li> <li>• Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye.</li> <li>• Call a Poison Control Center or doctor for treatment advice.</li> </ul>
<b>If on skin or clothing</b>	<ul style="list-style-type: none"> <li>• Take off contaminated clothing.</li> <li>• Rinse skin immediately with plenty of water for 15-20 minutes.</li> <li>• Call a Poison Control Center or doctor for treatment advice.</li> </ul>
<b>If inhaled</b>	<ul style="list-style-type: none"> <li>• Move person to fresh air.</li> <li>• If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth, if possible.</li> <li>• Call a Poison Control Center or doctor for further treatment advice.</li> </ul>
Have the product container or label with you when calling a poison control center or doctor, or going for treatment.	
<b>HOT LINE NUMBER</b> For 24 Hour Medical Emergency Assistance (Human or Animal) or Chemical Emergency Assistance (Spill, Leak, Fire or Accident), Call <b>1-800-888-8372</b>	

## **PRECAUTIONARY STATEMENTS**

### **Hazards to Humans and Domestic Animals**

#### **CAUTION**

Harmful if swallowed. Causes moderate eye injury. Avoid contact with eyes, skin, or clothing. Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals.

#### **Personal Protective Equipment (PPE)**

Some materials that are chemical-resistant to this product are listed below.

### **Mixers, Loaders, Applicators and other handlers must wear:**

- Coveralls over short-sleeved shirt and short pants
- Chemical-resistant gloves made of — Category A (e.g. barrier laminate, butyl rubber  $\geq 14$  mils, nitrile rubber  $\geq 14$  mils, neoprene rubber  $\geq 14$  mils, natural rubber  $\geq 14$  mils, polyethylene, polyvinyl chloride (PVC)  $\geq 14$  mils, -or Viton®)  $\geq 14$  mils
- Chemical-resistant footwear plus socks
- Chemical-resistant apron when mixing/loading, cleaning up spills, or cleaning equipment, or otherwise exposed to the concentrate
- Chemical-resistant headgear for overhead exposure

See engineering controls for additional requirements.

Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables exist, use detergent and hot water. Keep and wash PPE separately from other laundry. Discard clothing and other absorbent materials that have been drenched or heavily contaminated with this product's concentrate. Do not reuse them.

### **Engineering Control Statements**

When applicators use closed systems or enclosed cabs in a manner that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides [40 CFR 170.240(d)(5)], the handler PPE requirements may be reduced or modified as specified in the WPS.

#### **User Safety Recommendations**

##### **Users should:**

- Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet.
- Remove clothing/PPE immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.
- Remove PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

### **Environmental Hazards**

Do not apply directly to water, to areas where surface water is present, or to intertidal areas below the mean high water mark. Do not contaminate water when disposing of equipment wash water or rinsate. This product contains atrazine, which has been shown to be toxic to aquatic invertebrates. Runoff and drift from treated areas may be hazardous to aquatic organisms in neighboring areas. Do not apply when weather conditions favor drift from treated areas.

### **Ground Water Advisory**

Acuron® contains the active ingredients atrazine, S-metolachlor, bicyclopyrone and mesotrione.

Atrazine can travel (seep or leach) through soil and can enter ground water which may be used as drinking water. Atrazine has been found in ground water. Users are advised not to apply atrazine to sand and loamy sand soils where the water table (ground water) is close to the surface and where these soils are very permeable, i.e., well-drained. Your local agricultural agencies can provide further information on the type of soil in your area and the location of ground water.

S-metolachlor has the potential to leach through soil into ground water under certain conditions as a result of agricultural use. Use of this product in areas where soils are permeable, particularly where the water table is shallow may result in ground water contamination.

Bicyclopyrone is known to leach through soil into ground water under certain conditions as a result of label use. This chemical may leach into ground water if used in areas where soils are permeable, particularly where the water table is shallow.

### **Surface Water Advisory**

This product has a high potential for reaching surface water via runoff for several months or more after application. A level, well-maintained vegetative buffer strip between areas to which this product is applied and surface water features such as ponds, streams, and springs will reduce the potential loading of bicyclopyrone, atrazine, S-metolachlor and mesotrione from runoff water and sediment. Runoff of this product will be reduced by avoiding applications when rainfall or irrigation is expected to occur within 48 hours.

### **Mixing/Loading Instructions**

Care must be taken when using this product to prevent back-siphoning into wells, spills, or improper disposal of excess pesticide, spray mixtures, or rinsates.

Check valves or antisiphoning devices must be used on mixing equipment.

This product must not be mixed/loaded or used within 50 ft of wells, including abandoned wells, drainage wells, and sink holes. Operations that involve mixing, loading, rinsing, or washing to this product into or from pesticide handling or application equipment or containers within 50 ft of any well are prohibited, unless conducted on an impervious pad constructed to withstand the weight of the heaviest load that may be positioned on or moved across the pad. Such a pad shall be designed and maintained to contain any product spills or equipment leaks, container or equipment rinse or wash

water, and rain water that may fall on the pad. Surface water shall not be allowed to either flow over or from the pad, which means the pad must be self-contained. The pad shall be sloped to facilitate material removal. An unroofed pad shall be of sufficient capacity to contain, at a minimum, 110% of the capacity of the largest pesticide container or application equipment on the pad. A pad that is covered by a roof of sufficient size to completely exclude precipitation from contact with the pad shall have a minimum containment capacity of 100% of the capacity of the largest pesticide container or application equipment on the pad. Containment capacities as described above shall be maintained at all times. The above specified minimum containment capacities do not apply to vehicles when delivering pesticide shipments to the mixing/loading site.

Additional State imposed requirements regarding well head setbacks and operational area containment must be observed.

This product must not be mixed or loaded within 50 ft of perennial or intermittent streams and rivers, natural or impounded lakes and reservoirs. This product may not be applied within 66 ft of the points where field surface water runoff enters perennial or intermittent streams and rivers or within 200 ft from the edge of natural or impounded lakes and reservoirs. If this product is applied to highly erodible land, the 66 ft buffer or setback from runoff entry points must be planted to crop, or seeded with grass or other suitable crop.

#### **Tile-Outletted Terraced Fields Containing Standpipes**

One of the following restrictions must be used in applying atrazine to tile-outletted terraced fields containing standpipes:

1. Do not apply this product within 66 ft of standpipes in tile-outletted terraced fields.
2. Apply this product to the entire tile-outletted terraced field and immediately incorporate it to a depth of 2-3 inches in the entire field.
3. Apply this product to the entire tile-outletted terraced field under a no-till practice only when a high crop residue management practice is practiced. High crop residue management is described as a crop management practice where little or no crop residue is removed from the field during and after crop harvest.

#### **Physical and Chemical Hazards**

Do not use or store near heat or open flame.

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**CONDITIONS OF SALE AND LIMITATION OF WARRANTY AND LIABILITY**

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**NOTICE:** Read the entire Directions for Use and Conditions of Sale and Limitation of Warranty and Liability before buying or using this product. If the terms are not acceptable, return the product at once, unopened, and the purchase price will be refunded.

The Directions for Use of this product must be followed carefully. It is impossible to eliminate all risks inherently associated with the use of this product. Crop injury, ineffectiveness or other unintended consequences may result because of such factors as manner of use or application, weather or crop conditions, presence of other materials or other influencing factors in the use of the product, which are beyond the control of SYNGENTA CROP PROTECTION, LLC or Seller. To the extent permitted by applicable law, Buyer and User agree to hold SYNGENTA and Seller harmless for any claims relating to such factors.

SYNGENTA warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes stated in the Directions for Use, subject to the inherent risks referred to above, when used in accordance with directions under normal use conditions. To the extent permitted by applicable law: (1) this warranty does not extend to the use of the product contrary to label instructions, or under conditions not reasonably foreseeable to or beyond the control of Seller or SYNGENTA, and, (2) Buyer and User assume the risk of any such use. To the extent permitted by applicable law, SYNGENTA MAKES NO WARRANTIES OF MERCHANTABILITY OR OF FITNESS FOR A PARTICULAR PURPOSE NOR ANY OTHER EXPRESS OR IMPLIED WARRANTY EXCEPT AS WARRANTED BY THIS LABEL.

To the extent permitted by applicable law, in no event shall SYNGENTA or Seller be liable for any incidental, consequential or special damages resulting from the use or handling of this product. **TO THE EXTENT PERMITTED BY APPLICABLE LAW, THE EXCLUSIVE REMEDY OF THE USER OR BUYER, AND THE EXCLUSIVE LIABILITY OF SYNGENTA AND SELLER FOR ANY AND ALL CLAIMS, LOSSES, INJURIES OR DAMAGES (INCLUDING CLAIMS BASED ON BREACH OF WARRANTY, CONTRACT, NEGLIGENCE, TORT, STRICT LIABILITY OR OTHERWISE) RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT, SHALL BE THE RETURN OF THE PURCHASE PRICE OF THE PRODUCT OR, AT THE ELECTION OF SYNGENTA OR SELLER, THE REPLACEMENT OF THE PRODUCT.**

SYNGENTA and Seller offer this product, and Buyer and User accept it, subject to the foregoing Conditions of Sale and Limitation of Warranty and Liability, which may not be modified except by written agreement signed by a duly authorized representative of SYNGENTA.



## DIRECTIONS FOR USE

It is a violation of Federal Law to use this product in a manner inconsistent with its labeling.

ANY USE OF THIS PRODUCT IN AN AREA WHERE USE IS PROHIBITED IS A VIOLATION OF FEDERAL LAW. Before using this product, you must consult the Atrazine Watershed Information Center (AWIC) to determine whether the use of this product is prohibited in your watershed. AWIC can be accessed through [www.atrazine-watershed.info](http://www.atrazine-watershed.info) or 1-866-365-3014. If use of this product is prohibited in your watershed, you may return this product to your point of purchase or contact Syngenta Crop Protection, LLC for a refund.

Do not apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application. For any requirements specific to your State or Tribe, consult the agency responsible for pesticide regulation.

### AGRICULTURAL USE REQUIREMENTS

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR Part 170. This Standard contains requirements for the protection of agricultural workers on farms, forests, nurseries, and greenhouses, and handlers of agricultural pesticides. It contains requirements for training, decontamination, notification, and emergency assistance. It also contains specific instructions and exceptions pertaining to the statements on this label about personal protective equipment (PPE), and restricted-entry interval. The requirements in this box only apply to uses of this product that are covered by the Worker Protection Standard.

**Do not enter or allow worker entry into treated areas during the restricted-entry interval (REI) of 24 hours.**

For early entry to treated areas that is permitted under the Worker Protection Standard and that involves contact with anything that has been treated, such as plants, soil and water, wear:

- Coveralls over short-sleeved shirt and short pants
- Chemical-resistant gloves made of — Category A (e.g. barrier laminate, butyl rubber  $\geq 14$  mils, nitrile rubber  $\geq 14$  mils, neoprene rubber  $\geq 14$  mils, natural rubber  $\geq 14$  mils, polyethylene, polyvinyl chloride (PVC)  $\geq 14$  mils or Viton  $\geq 14$  mils)
- Chemical resistant footwear plus socks
- Chemical-resistant headgear for overhead exposure.

**FAILURE TO FOLLOW THE DIRECTIONS FOR USE AND PRECAUTIONS ON THIS LABEL MAY RESULT IN POOR WEED CONTROL, CROP INJURY, OR ILLEGAL RESIDUES.**

**Sale, use and distribution of this product in Nassau and Suffolk Counties in the State of New York is prohibited.**

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## **PRODUCT INFORMATION**

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Acuron may be used preemergence and postemergence in the culture of field corn, seed corn, and silage corn. Acuron may also be used in the culture of sweet corn and yellow popcorn but the application must be made prior to crop emergence, (i.e., preemergence) or severe crop injury may occur.

Acuron is a combination of the herbicides: atrazine, bicyclopyrone, mesotrione and S-metolachlor plus the safener benoxacor. Acuron is recommended for management of the weed species listed in Tables 1 and 2.

### **ATRAZINE, BICYCLOPYRONE, MESOTRIONE AND S-METOLACHLOR HERBICIDE RATE LIMITATIONS**

Certain states may have established rate limitations within specific geographical areas for the use of atrazine. These more restrictive/protective requirements must be followed. Consult your state lead pesticide control agency for additional information. It is a violation of this label to deviate from state use regulations.

- When tank mixing or sequentially applying atrazine or products containing atrazine with Acuron to corn, do not exceed an application rate of 2.0 lb active ingredient of atrazine per acre for any single application and the total pounds of atrazine applied (lb ai per acre) must not exceed 2.5 lb active ingredient per acre per year.
- Maximum broadcast application rates for atrazine in corn must be as follows:
  - If no atrazine was applied prior to corn emergence, apply a maximum of 2.0 lb ai/A broadcast. If a postemergence treatment is required following an earlier herbicide application, the total atrazine applied may not exceed 2.5 lb ai/A per calendar year.
  - Apply a maximum of 2.0 lb ai/A as a single preemergence application on soils that are not highly erodible or on highly erodible soils (as defined by the Natural Resource Conservation Service) if at least 30% of the soil is covered with plant residues.
  - Apply a maximum of 1.6 lb ai/A as a single preemergence application on highly erodible (as defined by the Natural Resource Conservation Service) soils if <30% of the surface is covered with plant residues; or 2.0 lb ai/A if only applied postemergence.

**Note:** For purposes of calculating total atrazine active ingredient applied, Acuron contains 1.0 lb ai atrazine plus related per gallon.

Do not exceed label dosage rates, nor combined maximum annual rates for mesotrione (no more than 0.24 lb of mesotrione active ingredient must be applied per acre of corn per year), and S-metolachlor (the maximum annual use rate per year is 3.71 lb ai/A for corn). Do not apply more than 0.045 lb ai/A per year of bicyclopyrone for corn.

## ACURON USE PRECAUTIONS

- Applied according to directions and under normal growing conditions, Acuron will not harm the treated crop. During germination and early stages of growth, extended periods of unusually cold and wet or hot and dry weather, insect or plant disease attack, carryover pesticide residues, the use of certain soil applied systemic insecticides, improperly placed fertilizers or soil insecticides, may weaken crop seedlings. Acuron used under these conditions could result in crop injury.
- Where reference is made to weeds partially controlled, partial control can either mean erratic control from good to poor or consistent control at a level below that generally considered acceptable for commercial weed control.
- Dry weather following preemergence application of Acuron or a Acuron tank mixture may reduce effectiveness. If possible, cultivate if weeds develop.
- Applying Acuron postemergence to corn that has received an at-plant application of Counter® insecticide can result in severe corn injury. Temporary corn injury may occur if Acuron is applied to emerged corn where organophosphate insecticides other than Counter were applied at planting.
- Postemergence (emerged corn) applications of any organophosphate or carbamate insecticide within 7 days before or 7 days after a Acuron application may result in severe corn injury.

## ACURON USE RESTRICTIONS

- Grazing Restriction: To avoid possible illegal residues, do not graze or feed forage from treated areas for 45 days following application.
- Pre-Harvest Interval (PHI): Corn (for grain, seed, or silage) may be treated up to 12 inches tall. Do not harvest forage within 60 days after application.
- Do not apply more than 3.0 qt of Acuron per acre per growing year.
- Do not use aerial application to apply Acuron.

- Do not apply Acuron to sweet corn or yellow popcorn after the crop has emerged or severe crop injury may occur.
- Do not use Acuron on any crop other than corn (for grain, seed, or silage), sweet corn (preemergence applications only) or yellow popcorn (preemergence applications only).
- Do not use Acuron in the culture of white popcorn or ornamental (Indian) corn or injury may occur.
- Do not contaminate irrigation water used for crops or water used for domestic purposes.
- Thoroughly clean sprayer or other application device before using. Dispose of cleaning solution in a responsible manner. Do not use a sprayer or applicator contaminated with other materials, or crop damage or sprayer clogging of the application device may occur.
- Read and observe all precautions and limitations on this label and the label of each product used in tank mixtures.
- Do not make postemergence (emerged corn) applications of Acuron in a tank mix with any organophosphate or carbamate insecticide, or severe corn injury may occur.
- Do not apply under conditions which favor runoff or wind erosion of soil containing this product to non-target areas. To prevent off-site movement due to runoff or wind erosion:
  - Avoid treating powdery dry or light sand soils when conditions are favorable for wind erosion. Under these conditions, the soil surface should first be settled by rainfall or irrigation.
  - Do not apply to impervious substrates, such as paved or highly compacted surfaces.
  - Do not use tail water from the first flood or furrow irrigation of treated fields to treat nontarget crops, unless at least ½ inch of rainfall has occurred between application and the first irrigation.

## RESISTANCE MANAGEMENT

Acuron is a combination of atrazine, bicyclopyrone, mesotrione and S-metolachlor (Group 5 (atrazine), 15 (S-metolachlor), and 27 (bicyclopyrone and mesotrione) Herbicides).

Naturally occurring biotypes of certain weed species with resistance to triazines, ALS, PPO, Glycine (glyphosate) and HPPD herbicides are known to exist. If biotypes of weeds resistant to triazines, ALS, PPO and glycine inhibitors are present in the field, this herbicide should control them if they are listed in Tables 1 and 2.

To reduce the risk of weeds developing resistance to HPPD inhibitors, implement a program including both preemergence and/or postemergence herbicides that provide effective control of all weeds using multiple modes of action. This includes scouting fields before application to ensure the herbicide will be appropriate for the weeds present. Scout fields and eliminate weed escapes. If suspected weed resistance is observed against a particular weed species contact your Syngenta or retailer representative or call Syngenta Customer Service (1-800-334-9481). Lack of weed control is not necessarily an indicator of weed resistance.

Consider weed resistance management strategies that include two or more modes of action where a minimum of two modes of action are effective at controlling the target weed when either are applied alone.

Read and follow all label directions.

Acuron Herbicide contains four herbicide active ingredients and three modes of action and can be an effective component of a weed resistance management strategy.

## **INTEGRATED PEST (WEED) MANAGEMENT**

Acuron may be integrated into an overall pest management strategy. Practices known to reduce weed development (tillage, crop competition) and herbicide use (weed scouting, proper application timing, banding, and rotations) should be followed wherever possible. Consult local agricultural and weed authorities for additional Integrated Pest Management strategies established for your area.

## **SOIL ORGANIC MATTER**

Determine the organic matter of the soil on which the application is to be made prior to application. The use rate of Acuron is based on percent soil organic matter.

## **REDUCED AND NO-TILL SYSTEMS**

Acuron may be used in reduced and no-till systems. The highest levels of control will be obtained when applications are made as close to planting as possible. It is recommended that a burndown herbicide such as Gramoxone®, Touchdown® brands, Roundup® brands, or 2,4-D be tank mixed with Acuron in reduced or no-till systems if weeds are present at application and the corn has not yet emerged.

## **WEEDS CONTROLLED**

Acuron applied as directed in this label will control or suppress the weeds listed in Tables 1 and 2. Additional weeds may be controlled with tank mixes. See the **Acuron Tank Mix Combinations** section for recommended tank mix combinations. Always consult the tank mix product labels for specific rates and use directions.

**Table 1. Weeds Controlled or Partially Controlled by Preemergence Applications of Acuron**

Common Name	Scientific Name	Weed Rating <sup>1</sup>
<b>Broadleaf Weeds</b>		
Amaranth, Palmer	<i>Amaranthus palmeri</i>	C
Amaranth, Powell	<i>Amaranthus powellii</i>	C
Bedstraw, catchweed	<i>Galium aparine</i>	PC
Beggarweed, Florida	<i>Desmodium tortuosum</i>	C
Buckwheat, wild	<i>Polygonum convolvulus</i>	C
Buffalobur	<i>Solanum rostratum</i>	C
Carpetweed	<i>Mollugo verticillata</i>	C
Chickweed, common	<i>Stellaria media</i>	C
Cocklebur, common	<i>Xanthium strumarium</i>	C <sup>2</sup>
Deadnettle, purple	<i>Lamium purpureum</i>	C
Devil's-claw	<i>Proboscidea louisianica</i>	C
Galinsoga	<i>Galinsoga parviflora</i>	C
Henbit	<i>Lamium amplexicaule</i>	C
Horseweed (maretail)	<i>Conyza canadensis</i>	C
Jimsonweed	<i>Datura stramonium</i>	C
Kochia	<i>Kochia scoparia</i>	C
Lambsquarters, common	<i>Chenopodium album</i>	C
Mallow, Venice	<i>Hibiscus trionum</i>	C
Morningglory, ivyleaf/entireleaf	<i>Ipomoea hederacea</i>	C <sup>2</sup>
Mustard, wild	<i>Brassica kaber</i>	C
Nightshade, black	<i>Solanum nigrum</i>	C
Nightshade, eastern black	<i>Solanum ptycanthum</i>	C
Nightshade, hairy	<i>Solanum sarrachoides</i>	C
Pigweed, redroot	<i>Amaranthus retroflexus</i>	C
Pigweed, smooth	<i>Amaranthus hybridus</i>	C
Puncturevine	<i>Tribulus terrestris</i>	C



Common Name	Scientific Name	Weed Rating <sup>1</sup>
Purslane, common	<i>Portulaca oleracea</i>	C
Pusley, Florida	<i>Richardia scabra</i>	C
Radish, wild	<i>Raphanus raphanistrum</i>	C
Ragweed, common	<i>Ambrosia artemisiifolia</i>	C
Ragweed, giant	<i>Ambrosia trifida</i>	C
Sesbania, hemp	<i>Sesbania exaltata</i>	C
Shepherd's-purse	<i>Capsella bursa-pastoris</i>	C
Sicklepod	<i>Cassia obtusifolia</i>	C
Sida, prickly	<i>Sida spinosa</i>	PC
Smartweed, ladysthumb	<i>Polygonum persicaria</i>	C
Smartweed, Pennsylvania	<i>Polygonum pennsylvanicum</i>	C
Sunflower, common	<i>Helianthus annuus</i>	PC
Thistle, Russian	<i>Salsola tragus</i>	C
Velvetleaf	<i>Abutilon theophrasti</i>	C
Waterhemp, common	<i>Amaranthus rudis</i>	C
Waterhemp, tall	<i>Amaranthus tuberculatus</i>	C
<b>Grass Weeds</b>		
Barnyardgrass	<i>Echinochloa crus-galli</i>	C
Crabgrass	<i>Digitaria</i> spp.	C
Crowfootgrass	<i>Dactyloctenium aegyptium</i>	C
Cupgrass, prairie	<i>Eriochloa contracta</i>	C
Cupgrass, Southwestern	<i>Eriochloa gracilis</i>	C
Cupgrass, woolly	<i>Eriochloa villosa</i>	PC
Foxtail, giant	<i>Setaria faberi</i>	C
Foxtail, green	<i>Setaria viridis</i>	C
Foxtail, robust (purple, white)	<i>Setaria</i> spp.	C
Foxtail, yellow	<i>Setaria pumila</i>	C
Goosegrass	<i>Eleusine indica</i>	C
Johnsongrass, seedling	<i>Sorghum halepense</i>	PC
Millet, foxtail	<i>Setaria italica</i>	C
Millet, wild proso	<i>Panicum miliaceum</i>	PC
Panicum, Texas	<i>Panicum texanum</i>	PC
Rice, red	<i>Oryza sativa</i>	C

Common Name	Scientific Name	Weed Rating <sup>1</sup>
Sandbur, field	<i>Cenchrus incertus</i>	PC
Shattercane	<i>Sorghum bicolor</i>	PC
Signalgrass, broadleaf	<i>Brachiaria platyphylla</i>	C <sup>2</sup>
Signalgrass, narrowleaf	<i>Brachiaria piligera</i>	C
Sprangletop, red	<i>Leptochloa filiformis</i>	C
Starbur, bristly	<i>Acanthospermum hispidum</i>	C
Witchgrass	<i>Panicum capillare</i>	C
<b>Sedges</b>		
Nutsedge, Yellow	<i>Cyperus esculentus</i>	C

<sup>1</sup>C = Control, PC = Partial Control

<sup>2</sup>May require a tank-mix partner (e.g. atrazine) for control of heavy populations

Thoroughly till soil or make an application of a burndown herbicide to control emerging weeds. Plant crop immediately after tillage.

If a significant rainfall does not occur within 7 days after application, weed control may be decreased. If irrigation is available, apply ½ to 1 inch of water. If irrigation is not available, a uniform shallow cultivation is recommended as soon as weeds emerge.

**Table 2. Weeds Controlled or Partially Controlled by Early Postemergence Applications of Acuron**

Common Name	Scientific Name	Weed Rating <sup>1</sup>
<b>Broadleaf Weeds</b>		
Amaranth, Palmer	<i>Amaranthus palmeri</i>	C
Amaranth, Powell	<i>Amaranthus powellii</i>	C
Bedstraw, catchweed	<i>Galium aparine</i>	PC
Beggarweed, Florida	<i>Desmodium tortuosum</i>	C
Buckwheat, wild	<i>Polygonum convolvulus</i>	C
Buffalobur	<i>Solanum rostratum</i>	C
Carpetweed	<i>Mollugo verticillata</i>	C
Chickweed, common	<i>Stellaria media</i>	C
Cocklebur, common	<i>Xanthium strumarium</i>	C
Dandelion	<i>Taraxacum officinale</i>	PC
Deadnettle, purple	<i>Lamium purpureum</i>	C
Devil's-claw	<i>Proboscidea louisianica</i>	C
Galinsoga	<i>Galinsoga parviflora</i>	C
Hemp	<i>Cannabis sativa</i>	C
Henbit	<i>Lamium amplexicaule</i>	C
Horsenettle	<i>Solanum carolinense</i>	C
Horseweed (maretail)	<i>Conyza canadensis</i>	C
Jimsonweed	<i>Datura stramonium</i>	C
Kochia	<i>Kochia scoparia</i>	C
Lambsquarters, common	<i>Chenopodium album</i>	C
Mallow, Venice	<i>Hibiscus trionum</i>	C
Marestail	<i>Hippuris vulgaris</i>	C
Morningglory, ivyleaf/entireleaf	<i>Ipomoea hederacea</i>	C
Mustard, wild	<i>Brassica kaber</i>	C
Nightshade, black	<i>Solanum nigrum</i>	C
Nightshade, eastern black	<i>Solanum ptycanthum</i>	C
Nightshade, hairy	<i>Solanum sarachoides</i>	C
Pigweed, redroot	<i>Amaranthus retroflexus</i>	C
Pigweed, smooth	<i>Amaranthus hybridus</i>	C
Pokeweed	<i>Phytolacca americana</i>	C

Common Name	Scientific Name	Weed Rating <sup>1</sup>
Potatoes, volunteer	<i>Solanum</i> spp.	C
Purslane, common	<i>Portulaca oleracea</i>	C
Pusley, Florida	<i>Richardia scabra</i>	C
Radish, wild	<i>Raphanus raphanistrum</i>	C
Ragweed, common	<i>Ambrosia artemisiifolia</i>	C
Ragweed, giant	<i>Ambrosia trifida</i>	C
Sesbania, hemp	<i>Sesbania exaltata</i>	C
Shepherd's-purse	<i>Capsella bursa-pastoris</i>	C
Sida, prickly	<i>Sida spinosa</i>	C
Smartweed, ladysthumb	<i>Polygonum persicaria</i>	C
Smartweed, Pennsylvania	<i>Polygonum pensylvanicum</i>	C
Sunflower, common	<i>Helianthus annuus</i>	C
Thistle, Canada	<i>Cirsium arvense</i>	C
Velvetleaf	<i>Abutilon theophrasti</i>	C
Waterhemp, common	<i>Amaranthus rudis</i>	C
Waterhemp, tall	<i>Amaranthus tuberculatus</i>	C
<b>Grass Weeds</b>		
Barnyardgrass	<i>Echinochloa crus-galli</i>	PC <sup>2</sup>
Crabgrass, large	<i>Digitaria sanguinalis</i>	C <sup>2</sup>
Foxtail, giant	<i>Setaria faberii</i>	PC <sup>2</sup>
Signalgrass, broadleaf	<i>Brachiaria platyphylla</i>	C <sup>2</sup>

<sup>1</sup>C = Control, PC = Partial Control

<sup>2</sup>Apply before the weed exceeds 2 inches in height

A tank mix of AAtrex® with Acuron can provide additional control of certain emerged annual grass weeds. Refer to the AAtrex label for weeds controlled and other restrictions.

## ROTATIONAL CROPS

When Acuron is applied as directed on this label, follow the crop rotation intervals in Table 3. If Acuron is tank mixed with other products, follow the most restrictive product's crop rotation interval.

Do not rotate to food or feed crops other than those listed on this label.

**Table 3. Time Interval Between Acuron Application and Replanting or Planting of Rotational Crop**

<b>Crop</b>	<b>Replant/Rotational Interval</b>
Field corn Seed corn Silage corn Sweet corn Yellow popcorn	Anytime <sup>1</sup>
Small grain cereals including wheat, barley and rye	4 Months
Cotton Dry beans <sup>2</sup> Peanuts Potato Rice Soybeans <sup>3,4</sup> Sorghum (all types)	10 Months <sup>5,6</sup>
All other rotational crops	18 Months

<sup>1</sup>Do not reapply Acuron.

<sup>2</sup>This rotational interval applies only to areas west of US highway 83 in the states of Colorado and Nebraska: If Acuron was applied to ground that was under center pivot irrigation and the soil pH is greater than 6.5, dry beans can be planted 10 months following application.

<sup>3</sup>Injury may occur to soybeans planted the year following application on soils having a calcareous surface layer if additional atrazine or atrazine-containing products are used.

<sup>4</sup>In eastern parts of the Dakotas, KS, western MN, and NE, do not rotate to soybeans for 18 months following application if the combined atrazine rate applied was more than 2.0 lb ai/A, or equivalent band application rate, or soybean injury may occur.

<sup>5</sup>If applied after June 1, rotating to crops other than corn (all types) may result in crop injury.

<sup>6</sup>In the High Plains and Intermountain areas of the West, where rainfall is sparse and erratic or where irrigation is required, use only when corn (all types) or sorghum is to follow corn, or a crop of untreated corn (all types) or sorghum is to precede other rotational crops.

## **APPLICATION PROCEDURES**

### **ADJUVANTS**

When an adjuvant is to be used with this product, the use of an adjuvant that meets the standards of the Chemical Producers and Distributors Association (CPDA) adjuvant certification program is recommended.

Where Acuron is applied after the corn has emerged, a non-ionic surfactant (NIS) at 0.25% v/v (1 qt/100 gal) may be used. The use of crop oil concentrate (COC) may

result in temporary crop injury. If used, add COC at a rate not to exceed 1% v/v (1 gal/100 gal) or not more than the equivalent of 1 qt/A. Do not use nitrogen based adjuvants (AMS or UAN) or methylated seed oil (MSO) with Acuron when applied alone to emerged corn, or when Acuron is applied as a postemergence tank mixture with other products, unless directed for a specific tank mix on this label or as part of a supplemental Acuron label. Any of these adjuvants may be used at a preemergence or preplant timing, i.e. where the corn crop has not yet emerged to increase burndown activity on existing weeds. Do not apply Acuron to emerged sweet corn or yellow popcorn or severe crop injury may occur.

For Acuron tank mixtures with Ignite® Herbicide applied to emerged field corn (LibertyLink® hybrids only), AMS may be added as directed on the Ignite label. However, AMS should be the only adjuvant added to this tank mixture, or severe crop injury may occur.

**Sprinkler Irrigation:** Do not apply Acuron by sprinkler irrigation. Use a sprinkler system only to incorporate Acuron after application. After Acuron has been applied, a sprinkler irrigation system set to deliver ½-1 inch of water may be used to incorporate the product. Using more than 1 inch of water could result in reduced performance. On sandy soil low in organic matter, use no more than ½ inch of water. Do not use flood irrigation to apply or incorporate Acuron.

## **CULTIVATION**

Should weeds develop; a shallow cultivation or rotary hoeing will generally result in improved weed control. If Acuron was incorporated, cultivate less than half the depth of incorporation.

If cultivation is necessary due to soil crusting, compaction, or escaped weeds, adjust equipment to run shallow and minimize soil movement. This will decrease the possibility of diluting or moving the herbicide from the weed control zone.

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## **SPRAY EQUIPMENT**

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### **Ground Application**

Spray nozzles should be uniformly spaced, the same size and type, and should provide accurate and uniform application. Use spray nozzles that provide medium to coarse droplet size to avoid drift yet provide good coverage. Ensure that all in-line strainer and nozzle screens in the sprayer are 50-mesh or coarser. Use a pump that can maintain the manufacturer's recommended pressure at the nozzles and provide proper agitation within the tank to keep the product dispersed. Lower pressures may be used with extended range or drift reduction nozzles as long as adequate coverage is maintained. Always ensure that agitation is maintained until spraying is completed, even if stopped for brief periods of time. If the agitation is stopped for more than 5 minutes, re-suspend the spray solution by running on full agitation prior to spraying.



**Preemergence:** Apply in a spray volume of 10-80 gal/A.

**Early Postemergence:** Good weed coverage is essential for optimum weed control. Boom height for broadcast over-the-top applications should be based on the height of the crop – at least 15 inches above the crop canopy, but only high enough to give uniform coverage. Apply in a spray volume of 10-30 gal/A. When weed foliage is dense, use a minimum spray volume of 20 gal/A. Flat fan nozzles of 80° or 110° are recommended for optimum postemergence coverage. Do not use floodjet nozzles or controlled droplet application equipment for postemergence applications. Nozzles may be angled forward 45° to enhance penetration of the crop and provide better coverage.

### **Aerial Prohibition**

Do not apply by air.

### **Spray Drift**

Do not apply when weather conditions may cause drift to nontarget areas. Drift may result in injury to adjacent crops and vegetation. To avoid spray drift, DO NOT apply when the wind speed is greater than 10 mph or during periods of temperature inversions.

AVOIDING SPRAY DRIFT AT THE APPLICATION SITE IS THE RESPONSIBILITY OF THE APPLICATOR.

The interaction of equipment and weather related factors determine the potential for spray drift. The applicator is responsible for considering these factors when making a decision.

### **Information on Droplet Size**

The most effective way to reduce spray drift potential is to apply large droplets. Use only nozzles producing medium to ultra coarse droplets. Do not use nozzles producing fine droplets.

### **Controlling Droplet Size**

- **Volume** - Use high flow rate nozzles to apply the highest practical spray volume. Nozzles with higher rated flows produce larger droplets.
- **Pressure** - Do not exceed the nozzle manufacturer's recommended pressures. For many nozzle types, lower pressure produces larger droplets. When higher flow rates are needed, use higher rate nozzles instead of increasing pressure.

- **Number of Nozzles** - Use the minimum number of nozzles that provide uniform coverage.

### **Application Height**

Applications must be made at the lowest height above the target area that still provides uniform coverage of the target. Making applications at the lowest yet effective height reduces exposure of droplets to wind.

### **Wind**

Drift potential is lowest when wind speeds are 10 mph or less. However, many factors, including droplet size, pressure, and equipment type determine drift potential at any given wind speed. **Note:** Local terrain can influence wind patterns.

Leave a 25-foot buffer downwind of the application to avoid drift to non-target areas. This buffer may be untreated corn rows or field border species maintained for this purpose.

### **Temperature Inversions**

Applications must not occur during a temperature inversion because drift potential is high. Temperature inversions restrict vertical air mixing, which causes small suspended droplets to remain in a concentrated cloud. This cloud can move in unpredictable directions due to the light variable winds common during inversions. Temperature inversions are characterized by increasing temperatures with altitude and are common on nights with limited cloud cover and light to no wind. They begin to form as the sun sets and often continue into the morning. Their presence can be indicated by ground fog; however, if fog is not present, inversions can also be identified by the movement of smoke from a ground source or an aircraft smoke generator. Smoke that layers and moves laterally in a concentrated cloud (under low wind conditions) indicates an inversion, while smoke that moves upward and rapidly dissipates, indicates good vertical air mixing.

### **Non-Target Areas**

Do not apply this pesticide when the product may drift to non-target areas (i.e. residential areas, bodies of water, known habitat for threatened or endangered species, non-target crops).

### **Cleaning Equipment After Application**

Special attention must be given to cleaning equipment before spraying a crop other than corn. Mix only as much spray solution as needed.

1. Flush tank, hoses, boom, and nozzles with clean water.

2. Prepare a cleaning solution of 1 gal of household ammonia per 25 gal of water. Many commercial spray tank cleaners may be used.
3. Use a pressure washer to clean the inside of the spray tank with this solution. Take care to wash all parts of the tank, including the inside top surface. If a pressure washer is not available, completely fill the sprayer with the cleaning solution to ensure contact of the cleaning solution with all internal surfaces of the tank and plumbing. Start agitation in the sprayer and thoroughly recirculate the cleaning solution for at least 15 minutes. Remove all visible deposits from the spraying system.
4. Flush hoses, spray lines, and nozzles for at least 1 minute with the cleaning solution.
5. Dispose of rinsate from steps 1-3 in an appropriate manner.
6. Repeat steps 2-5.
7. Remove nozzles, screens, and strainers and clean separately in the ammonia solution after completing the above procedures.
8. Rinse the complete spraying system with clean water.

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## MIXING PROCEDURES

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### CARRIER

**Preemergence Applications:** Either clean water or liquid fertilizers, excluding suspension fertilizers, may be used as carriers for preemergence applications. If fluid fertilizers are used, a compatibility test must be done. See Compatibility Test section for compatibility testing. Even if Acuron is physically compatible with a fluid fertilizer, constant agitation is necessary to maintain a uniform mixture during application.

**Postemergence Applications:** Use only clean water as the carrier when applying Acuron after corn emergence. Do not apply Acuron to emerged sweet corn or yellow popcorn.

### ADDING ACURON TO THE SPRAY TANK

The spray tank must be clean, thoroughly rinsed and decontaminated before adding either Acuron alone or with tank mix partners. If water is used as the carrier, use clean water.

**Acuron Applied Alone:** When Acuron is used alone, add the recommended amount of Acuron to the spray tank when the tank is half full of the carrier, then add the rest of the

water or fluid fertilizer. Provide sufficient agitation during mixing and application to maintain a uniform mixture.

**Acuron Applied in Tank Mixtures:** Refer to the sections on this label for recommended tank mixes. Always refer to labels of the tank mix partners for mixing directions and precautions. Do not exceed label dosage rates, nor combined maximum seasonal doses for atrazine, bicyclopyrone, mesotrione, or S-metolachlor. This product cannot be mixed with any product bearing a label prohibition against such mixing. If a tank mixture is used, a compatibility test must be done. See Compatibility Test section for details on the procedure for such a test.

If the tank-mix partner is compatible, fill the tank half full of the carrier. Start and continue agitation throughout mixing and spraying. All return lines to the spray tank must discharge below the liquid level. Prepare the components and add in the following order:

1. If a wettable powder or dry flowable formulation is used, make a slurry with water and add it slowly through the screen into the tank. Agitate during the procedure.
2. If a flowable formulation is used, add slowly through screen into the tank. Mixing and compatibility may be improved when a dry flowable is diluted with water before adding to the tank.
3. Add Acuron.
4. Add any other tank mix products next with emulsifiable concentrates added last.
5. Add an adjuvant last, if needed.
6. Complete filling the sprayer tank and continue agitation. Apply as soon as possible after spray mixture is prepared. Do not leave mixture in spray tank overnight without agitation or unattended.

## TANK MIX COMPATIBILITY TEST

A compatibility test is recommended before tank mixing to ensure compatibility of Acuron with other pesticides. The following test assumes a spray volume of 25 gal/A. For other spray volumes, make appropriate changes in the ingredients.

**Note:** Nitrogen solutions or complete liquid fertilizers, excluding suspension fertilizers, may replace all or part of the water in the spray. Because liquid fertilizers vary, even within the same analysis, **always check compatibility with pesticide(s) before use.** Incompatibility of tank mixtures is more common with mixtures of fertilizer and pesticides.

## Test Procedure

1. Add 1.0 pt of carrier (fertilizer or water) to each of two 1 qt jars with tight lids.  
**Note:** Use the same source of water that will be used for the tank mix and conduct the test at the temperature the tank mix will be applied.
2. To one of the jars, add ¼ tsp or 1.2 milliliters of a compatibility agent approved for this use, such as Compex or Unite (¼ tsp is equivalent to 2.0 pt/100 gal spray). Shake or stir gently to mix.
3. To both jars, add the appropriate amount of pesticide(s) in their relative proportions based on recommended label rates. If more than one pesticide is used, add them separately with dry pesticides first, flowables next, and emulsifiable concentrates last. After each addition, shake or stir gently to thoroughly mix.
4. After adding all ingredients, put lids on and tighten, and invert each jar 10 times to mix. Let the mixtures stand 15-30 minutes and then look for separation, large flakes, precipitates, gels, heavy oily film on the jar, or other signs of incompatibility. Determine if the compatibility agent is needed in the spray mixture by comparing the two jars. If either mixture separates, but can be remixed readily, the mixture can be sprayed as long as good agitation is used. If the mixtures are incompatible, test the following methods of improving compatibility: (a) slurry the dry pesticide(s) in water before addition, or (b) add ½ the compatibility agent to the fertilizer or water and the other ½ to the emulsifiable concentrate or flowable pesticide before addition to the mixture. If incompatibility is still observed, do not use the mixture.
5. After compatibility testing is complete, dispose of any pesticide wastes in accordance with the **Storage and Disposal** section in this label.

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## CROP USE DIRECTIONS

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Acuron is to be used for preemergence use for control of most annual grass and broadleaf weeds in field corn, seed corn, silage corn, sweet corn and yellow popcorn. Acuron may also be applied early postemergence for the control of broadleaf weeds in field corn, seed corn and silage corn. Do not apply Acuron to emerged sweet corn or yellow popcorn or severe crop injury will occur.

See Table 1 and 2 for a list of weeds controlled.

**Acuron Use Rate:** Determine the soil organic matter content of the field on which Acuron is to be applied and then refer to Table 4 to determine application rate. On soils with greater than 10% organic matter, Acuron activity may be affected resulting in reduced or poor weed control.

**Table 4: Acuron Herbicide Application Rates<sup>1</sup>**

Soil Organic Matter Content	Application rate <sup>1,2</sup>
<3%	2.5 qt/A
≥3%	3.0 qt/A

<sup>1</sup>Do not exceed 3.0 qt/A of Acuron per year. These rates apply to all application method timings.

<sup>2</sup>Do not exceed 3.0 qt/A of Acuron per year.

## ACURON APPLIED ALONE

**Early Preplant:** Acuron may be applied up to 28 days prior to planting.

**Preemergence Surface:** Acuron may be applied to the soil surface as a broadcast or banded application.

**Early Postemergence:** Acuron may be applied after corn (for grain, seed, or silage) emergence. See the “Adjuvants” section of this label for specific recommendations. Do not apply early postemergence to corn in liquid fertilizer or severe crop injury may occur. Apply this treatment to small broadleaf weeds (less than 3 inches tall). Occasional corn leaf burn may result, but this will not affect later growth or corn yield. Do not apply Acuron to emerged sweet corn or yellow popcorn or severe crop injury may occur. Postemergence applications to corn must be made before crop reaches 12 inches in height.

This product will not provide consistent control of emerged grass weeds. For control of emerged grass weeds a grass herbicide tank mix may be required (see tank mix section of this label). Tank mixes of AAtrex can improve control of emerged annual grass and broadleaf weeds. Refer to the AAtrex label for weeds controlled and use restrictions.

If Bicep II Magnum®, Bicep Lite II Magnum®, AAtrex (atrazine), Dual Magnum®, or Dual II Magnum® alone or in tank mixtures have been applied early preplant, preplant surface, preplant incorporated, or preemergence, limit the Acuron early post application to not exceed a total of 2.5 lb of active ingredient of atrazine or 3.75 lb of S-metolachlor active per acre, or illegal residues may result.

**Split Application:** Acuron may be applied as a split application in corn (for grain, seed, or silage). For a split application program, apply ½ to ⅔ of the labeled rate of Acuron prior to crop emergence followed by a second Acuron application at ⅓ to ½ of the labeled rate as a post application after corn emergence. The total amount of Acuron applied in the split application program cannot exceed 2.5 qt/A in soils with <3% OM and cannot exceed 3.0 qt/A in soils with ≥3% OM. Refer to the **Early Postemergence** section above for instructions on postemergence applications.



## ACURON TANK MIX COMBINATIONS

### Use of Spray Adjuvants with Tank Mixtures

When Acuron is used as a preemergence herbicide, and before weeds have emerged, spray adjuvants have little or no influence on performance. However, in burndown situations where the weeds have emerged and the corn has not, an adjuvant may be used with Acuron applied alone or when applied in tank mixture with a burndown herbicide as allowed on the individual product labels. Use only those adjuvants approved for agricultural crop use. See the “**Adjuvants**” section under “**Application Procedures**” for further instructions.

### Burndown Combinations for Reduced Tillage Situations

In reduced or no-till corn and before the crop has emerged, Acuron tank mixes with Gramoxone brands or Touchdown brands (or other glyphosate products such as Roundup brands) will burndown emerged weeds. For best results, tank mixes of Acuron plus Gramoxone should be applied to emerged weeds that are 1-6 inches in height. Consult the Gramoxone, Touchdown brand, or glyphosate product label for further information on weeds controlled and application timings.

### Preemergence Tank Mixtures Applied Before Corn Emergence

The tank mix partners listed in Table 45 may be used in either conventional, reduced, or no-till systems and be applied by the same methods and at the same timings as Acuron unless otherwise specified in the tank mix product label. Follow all tank mix product labels for use rates and restrictions. Perform a compatibility test prior to spraying the tank mix application. Tank mixtures with 2,4-D are allowed, but should only be done with extreme care with regard to ensuring compatibility before mixing a load. 2,4-D products, and even batches, vary greatly with regard to compatibility and should be checked each time a water or carrier source, water or carrier temperature, product source, or tank mixture recipe is changed.

**Table 45: Tank Mixtures for Preemergence Applications with Acuron**

Tank Mix	Rate (Max)	Objective
AAtrex or other solo Atrazine products	0.5-1.25 lb ai/A	Improved broadleaf and grass weed control
Princep®	0.5-1.3 lb ai/A	Improved broadleaf and grass weed control
Gramoxone brands	See product label	Burndown existing weeds
Touchdown brands	See product label	Burndown existing weeds
Roundup or other glyphosate brands	See product label	Burndown existing weeds
Warrior brands	See product label	To control insects, such as cutworm

### Early Postemergence Tank Mixtures Applied After Corn Emergence

The tank mix partners listed in Table 56 may be used in conventional, reduced or no-till systems and can be applied by the same methods and at the same timings as Acuron unless otherwise specified in the tank mix product label. Follow all tank mix product labels for use rates and restrictions. Perform a compatibility test prior to spraying the tank mix application. Do not apply Acuron tank mixtures to emerged sweet corn or yellow popcorn.

**Table 56: Tank Mixtures for Early Postemergence Weed Control with Acuron**

Tank Mix <sup>1</sup>	Rate (Max)	Objective
AAtrex or other solo Atrazine products	0.5-1.25 lb ai/A	Improved broadleaf and annual grass weed control
Warrior brands	3.84 fl oz/A	To control insects, such as cutworm
Accent® Q	As per product label	Emerged grass control
Basis® brands	As per product label	Emerged grass control
Steadfast® Q	As per product label	Emerged grass control

<sup>1</sup>Consult the “**Adjuvant**” section of this label for directions when applying Acuron alone or in tank mixture to emerged corn (for grain, seed, or silage).

### Acuron Programs with Glyphosate in Glyphosate Tolerant Corn

Acuron may be applied early postemergence at a rate of 1.5-2 qt/A in tank mixture with a solo glyphosate product (e.g. Touchdown or Roundup brands) that is registered for use over-the-top in glyphosate tolerant field corn (e.g. Roundup Ready or Agrisure™ GT Corn). To minimize weed competition with the crop, target the application of this mixture to weeds in the 1 to 2 inch range. Do not apply this mixture to corn that is greater than 12 inches tall. If the glyphosate product has a built-in adjuvant system (i.e. the product label does not ask for additional adjuvant), only spray-grade ammonium sulfate (AMS) at 8.5 lb/100 gal should be added to this mixture. If the glyphosate

product label calls for an adjuvant in addition to AMS, add a non-ionic surfactant (NIS) at 0.25% v/v and AMS to this spray mixture. Do not add urea ammonium nitrate (UAN), crop oil concentrate (COC), or methylated seed oil (MSO) type adjuvants to these mixtures, or crop injury may occur. Follow all directions for use and restrictions on the glyphosate product label.

Alternatively, Acuron may be applied preemergence at a rate down to 2 qt/A as part of a two-pass weed control system when followed by a postemergence application of a glyphosate based product in glyphosate tolerant corn (e.g. Roundup Ready or Agrisure GT Corn). When used in this way, Acuron will provide reduced competition of the weeds listed in Table 1 for a period of 30 or more days, thus improving the timing flexibility and effectiveness of the glyphosate based product application. Follow all directions for use and restrictions on the glyphosate product label.

Acuron may be applied preemergence at 1.25-1.5 qt/A as part of a two-pass weed control system when followed by Halex® GT postemergence in glyphosate tolerant corn (e.g. Roundup Ready or Agrisure GT Corn). Follow all directions for use and restrictions on each product label.

### **Acuron Programs for LibertyLink Corn**

Acuron may be applied early postemergence at a rate of 1.5-2.3 qt/A in tank mixture with Ignite and applied over-the-top in field corn designated as LibertyLink. To minimize weed competition with the crop, target the application of this mixture to weeds in the 1 to 2 inch range. Do not apply this mixture to corn that is greater than 12 inches tall. Ammonium sulfate (AMS) may be added as a spray adjuvant as directed on the Ignite label. However, AMS should be the only adjuvant added to this tank mixture. Do not add urea ammonium nitrate (UAN), crop oil concentrate (COC), non-ionic surfactants (NIS), or methylated seed oil (MSO) type adjuvants to these mixtures, or crop injury may occur. Follow all directions for use and restrictions on the Ignite product label.

Alternatively, Acuron may be applied preemergence at a rate down to 2 qt/A as part of a two-pass weed control system when followed by a postemergence application of Ignite in field corn designated as LibertyLink. When used in this way, Acuron will provide reduced competition of the weeds listed in Table 1 for a period of 30 or more days, thus improving the timing flexibility and effectiveness of the Ignite application. Follow all directions for use and restrictions on the Ignite product label.

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## **STORAGE AND DISPOSAL**

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Do not contaminate water, food, or feed by storage or disposal.

### **Pesticide Storage**

Keep container tightly closed when not in use. Do not store near seeds, fertilizers, or foodstuffs. Keep away from heat and flame. Ground water contamination may be

reduced by diking and flooring of permanent liquid bulk storage sites with an impermeable material.

### **Pesticide Disposal**

Open dumping is prohibited. Waste resulting from the use of this product may be disposed of on site or at an approved waste disposal facility. Rinse spray equipment. Pesticide wastes are acutely hazardous. Improper disposal of excess pesticide, spray mixture, or rinsate is a violation of Federal law. If these wastes cannot be disposed of as described above, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste Representative at the nearest EPA Regional Office for guidance.

### **Container Handling [equal to or less than 5 gallons]**

Non-refillable container. Do not reuse or refill this container. Offer for recycling if available. Triple rinse container (or equivalent) promptly after emptying. Triple rinse as follows: empty the remaining contents into application equipment of a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container  $\frac{1}{4}$  full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. Then offer for recycling if available or puncture and dispose of in a sanitary landfill, or by incineration, or, by other procedures allowed by state and local authorities.

For minor spills, leaks, etc. follow all precautions on this label and clean up immediately. Take special care to avoid contamination of equipment and facilities during cleanup procedures and disposal of wastes. In the event of a major spill, fire, or other emergency, call 1-800-888-8372, day or night. If the container is damaged and leaking or material has been spilled follow these procedures:

1. Cover spill with absorbent material.
2. Sweep into disposal container.
3. Wash area with detergent and water and follow with clean water rinse.
4. Do not allow to contaminate water supplies.
5. Dispose of according to instructions.

### **Container Handling [greater than 5 gallons]**

Refillable container. Refill this container with pesticide only. Do not reuse this container for any other purpose. Cleaning the container before final disposal is the responsibility of the person disposing of the container. Cleaning before refilling is the responsibility of the refiller. To clean container before final disposal, empty the remaining contents from this container into application equipment or mix tank. Fill the container about 10 percent full with water. Agitate vigorously or recirculate water with the pump for 2 minutes. Pour or pump rinsate into application equipment or rinsate collection system. Repeat this rinsing procedure two more times. Then offer for recycling if available or puncture

and dispose of in a sanitary landfill, or by incineration, or, by other procedures allowed by state and local authorities.

For minor spills, leaks, etc. follow all precautions on this label and clean up immediately. Take special care to avoid contamination of equipment and facilities during cleanup procedures and disposal of wastes. In the event of a major spill, fire, or other emergency, call 1-800-888-8372, day or night. If the container is damaged and leaking or material has been spilled follow these procedures:

1. Cover spill with absorbent material.
2. Sweep into disposal container.
3. Wash area with detergent and water and follow with clean water rinse.
4. Do not allow to contaminate water supplies.
5. Dispose of according to instructions.

**CONTAINER IS NOT SAFE FOR FOOD, FEED, OR DRINKING WATER!**

---

AAtrex®, Acuron®, Agrisure® GT, Bicep II Magnum®, Bicep Lite II Magnum®, Callisto®, Callisto Plant Technology®, Concep®, Dual II Magnum®, Dual Magnum®, Gramoxone®, Halex® GT, Princep®, Touchdown®, Warrior®, and the SYNGENTA Logo are Trademarks of a Syngenta Group Company.

| Accent®, Basis®, Steadfast®, and Viton® are trademarks of E. I. du Pont de Nemours and Company.

| Counter® is a trademark of BASF Corporation.

| Ignite® and LibertyLink® are trademarks of Bayer CropScience.

| Roundup® and Roundup Ready® are trademarks of Monsanto Company.

©201X Syngenta

<p>For non-emergency information (e.g., current product information), call Syngenta Crop Protection at 1-800-334-9481</p>
---

Manufactured for:  
Syngenta Crop Protection, LLC  
P. O. Box 18300  
Greensboro, North Carolina 27419-8300

Acuron Herbicide 1466 MAS 1015 NOTIF MAY2017 – kdy – 05/18/2017  
000100-01466.20170518.ACURON-HERBICIDE-NOTIF-MAY2017-HI.pdf



Explore Registrations

Reg Number: 100-1466

Reg. Type: Product Registration - Section 3

Status: Conditionally Registered (24-Apr-2)

Name: ACURON HERBICIDE

<View Registration Details>

(No New Receipts)

S.	Submission Type	OPP Rec'd Date	Resubmission	Description

Decisions...

D: Pending; 531650; 100-1466;332;NOTIFICATION

75-Day Letters

S: 1003942 5/22/2017; Notification; 100

D: Pending; 528253; 100-1466;575;CONDITION

Data Requirements

D: Closed; 509305; 100-1466;300;LABEL REVIS

D: Closed; 508868; 100-1466;392;MINOR FORI

D: Closed; 470872; 100-1466;R010.0;NEW AI;F

S: 003942 Reg #: 100-1466

Submission Type: Notification

Resubmission?: ☐ Yes ☒ No E-Sub #:

Decision #: 531650; 332;NOTIFICATION;

Submitter Company: SYNGENTA CROP PROTECTION, LLC

Application Date: 22-May-2017

OPP Received Date: 22-May-2017 Date Sent to Risk manager: 24-May-2017

Studies Included?: ☐ Yes ☒ No Fast Track?: ☐ Yes ☒ No

Form A Signed?: ☐ Yes ☐ No ☒ None Date:

Form B Signed?: ☐ Yes ☐ No ☒ None Date:

Reviewer: Pahel, Lisa

Received DT: 24-May-2017 Editable Due DT:

Submission Due DT: 21-Jun-2017 Response: 0, 22-May-2017

Priority Weight: Priority Points:

Comments:

Sent for PM review 7/25





Amanda M. Foderaro  
Regulatory Product Specialist  
Regulatory Affairs, Herbicides  
(336) 632-2098 (phone)  
(336) 632-5688 (fax)  
[amanda.m.foderaro@syngenta.com](mailto:amanda.m.foderaro@syngenta.com)

Syngenta Crop Protection, LLC  
P.O. Box 18300  
Greensboro, NC 27419-8300  
[www.syngenta.com](http://www.syngenta.com)

**EPA Portal**

May 22, 2017

Document Processing Desk (**NOTIF**)  
Office of Pesticide Programs (7504P)  
U.S. Environmental Protection Agency  
Room S-4900, One Potomac Yard  
2777 South Crystal Drive  
Arlington, VA 22202-4501

**Attn: Mr. Erik Kraft, PM Team 24, Fungicide-Herbicide Branch  
Registration Division**

**SUBJECT: Acuron® Herbicide (EPA Reg. No. 100-1466)  
Notification of Minor Label Clarifications**

Dear Mr. Kraft:

Syngenta Crop Protection, LLC is herein submitting a notification per PR 98-10 IIM, for Acuron Herbicide (EPA Reg. No., 100-1466) to propose minor adjustments to table language and formatting for clarification purposes as well as correction of typographical errors. Please note that the typographical error being corrected under the Acuron Programs with Glyphosate in Glyphosate Tolerant Corn (pg. 27) is correcting the rate range to reflect the rate indicated under Directions for Use (pg. 23-24). No new rates are being proposed.

Enclosed in support of this notification are the following documents:

- One copy of the label with the proposed changes clearly marked
- One unmarked copy of the label
- Completed EPA Application for Pesticide Registration Form 8570-1.

**Fees for Services**

Since this is a notification, a PRIA fee is not required per the Pesticide Registration Improvement Renewal Act (PRIA III) of 2012.


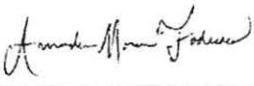
If there are any questions concerning matters contained in this notification, please do not hesitate to contact me at either 336-632-2098 or by email at [amanda.m.foderaro@syngenta.com](mailto:amanda.m.foderaro@syngenta.com). Alternatively, you may also contact Pat Eay at 336-632-6746 or by email at [pat.eay@syngenta.com](mailto:pat.eay@syngenta.com) with any questions.

Kind regards,

Amanda M. Foderaro  
Regulatory Specialist, Herbicides

Enclosures

Please read instructions on reverse before completing form.

 <b>United States</b> <b>Environmental Protection Agency</b> Washington, DC 20460		<input type="checkbox"/> Registration <input type="checkbox"/> Amendment <input checked="" type="checkbox"/> Other	OPP Identifier Number <b>NOTIFICATION</b>
<b>Application for Pesticide - Section I</b>			
1. Company/Product Number 100-1466		2. EPA Product Manager Erik Kraft	
4. Company/Product (Name) Acuron® Herbicide		3. Proposed Classification <input type="checkbox"/> None <input type="checkbox"/> Restricted	
5. Name and Address of Applicant (Include ZIP Code) Syngenta Crop Protection, LLC P. O. Box 18300 Greensboro, NC 27419  <input type="checkbox"/> Check if this is a new address		6. <b>Expedited Review.</b> In accordance with FIFRA Section 3(c)(3) (b)(i), my product is similar or identical in composition and labeling to:  EPA Reg. No. _____ Product Name _____	
<b>Section - II</b>			
<input type="checkbox"/> Amendment - Explain below. <span style="margin-left: 200px;"><input type="checkbox"/> Final printed labels in response to Agency letter dated _____</span> <input type="checkbox"/> Resubmission in response to Agency letter dated _____ <span style="margin-left: 200px;"><input type="checkbox"/> "Me Too" Application.</span> <input checked="" type="checkbox"/> Notification - Explain below. <span style="margin-left: 200px;"><input type="checkbox"/> Other - Explain below.</span>			
<b>Explanation:</b> Use additional page(s) if necessary. (For Section I and Section II.) Syngenta Crop Protection, LLC is herein submitting a notification per PR 98-10 IIM, for Acuron Herbicide (EPA Reg. No., 100-1466) to propose minor adjustments to table language and formatting for clarification purposes as well as correction of typographical errors. Please note that the typographical error being corrected under the Acuron Programs with Glyphosate in Glyphosate Tolerant Corn (pg. 27) is correcting the rate range to reflect the rate indicated under Directions for Use (pg. 23-24). No new rates are being proposed. This notification is consistent with the provisions of PR Notice 98-10 and EPA regulations at 40 CFR 152.46, and no other changes have been made to the labeling or the confidential statement of formula of this product. I understand that it is a violation of 18 U.S.C. Sec. 1001 to willfully make any false statement to EPA. I further understand that if this notification is not consistent with the terms of PR Notice 98-10 and 40 CFR 152.46, this product may be in violation of FIFRA and I may be subject to enforcement action and penalties under sections 12 and 14 of FIFRA.			
<b>Section - III</b>			
1. <b>Material This Product Will Be Packaged In:</b>			
Child-Resistant Packaging <input type="checkbox"/> Yes* <input checked="" type="checkbox"/> No	Unit Packaging <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Water Soluble Packaging <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	2. Type of Container  <input type="checkbox"/> Metal <input checked="" type="checkbox"/> Plastic <input type="checkbox"/> Glass <input type="checkbox"/> Paper <input type="checkbox"/> Other (Specify) _____
*Certification must be submitted If "Yes" Unit Packaging wgt. No. per Container If "Yes" Unit Packaging wgt. No. per container			
3. Location of Net Contents Information  <input checked="" type="checkbox"/> Label <input type="checkbox"/> Container		4. Size(s) Retail Container	5. Location of Label Directions  <input checked="" type="checkbox"/> On Label <input type="checkbox"/> On Labeling accompanying product
6. Manner in Which Label is Affixed to Product <input type="checkbox"/> Lithograph <input type="checkbox"/> Paper glued <input checked="" type="checkbox"/> Other <u>Pressure Sensitive</u> <input type="checkbox"/> Stenciled			
<b>Section - IV</b>			
1. Contact Point (Complete items directly below for identification of individual to be contacted, if necessary, to process this application.)			
Name Amanda Foderaro		Title Regulatory Specialist	Telephone No. (Include Area Code) 336-632-2098
Certification I certify that the statements I have made on this form and all attachments thereto are true, accurate and complete. I acknowledge that any knowingly false or misleading statement may be punishable by fine or imprisonment or both under applicable law.			6. Date Application Received (Stamped)
2. Signature  		3. Title Regulatory Specialist <a href="mailto:amanda.M.foderaro@syngenta.com">amanda.M.foderaro@syngenta.com</a>	
4. Typed Name Amanda M. Foderaro		5. Date May 22, 2017	



Syngenta Crop Protection, LLC  
P.O. Box 18300  
Greensboro, NC 27419-8300  
[www.syngenta.com](http://www.syngenta.com)

**FEDERAL EXPRESS**

November 25, 2015

Document Processing Desk  
Office of Pesticide Programs (7504P)  
U.S. Environmental Protection Agency  
Room S-4900, One Potomac Yard  
2777 South Crystal Drive  
Arlington, VA 22202

Attention: Ms. Heather A. Garvie, PM 24

Dear Ms. Garvie:

<b>SUBJECT: ACURON™ HERBICIDE EPA REG. NO. 100-1466 SUBMISSION OF FINAL PRINTED LABEL</b>
---

Syngenta Crop Protection, LLC hereby submits one copy of final printed labeling for Acuron Herbicide (EPA Reg. No. 100-1466), as requested in your approval letter dated October 7, 2015. The final printed labeling includes only a subset of the approved directions for use, as allowed by 40 CFR 152.130(b).

Also enclosed is EPA Form 8570-1 indicating submission of final printed labeling. If you have any questions, please contact me at 336-632-2409.



Respectfully submitted,

A handwritten signature in black ink that reads "Tamara Murphy". The signature is written in a cursive, flowing style.

Tamara Murphy  
NAFTA Senior Regulatory Product Manager, Herbicides  
Regulatory Affairs  
[tamara.murphy@syngenta.com](mailto:tamara.murphy@syngenta.com)

Enclosures

Please read instructions on reverse before completing form.

 <b>United States</b> <b>Environmental Protection Agency</b> Washington, DC 20460		<input type="checkbox"/> Registration <input type="checkbox"/> Amendment <input checked="" type="checkbox"/> Other	OPP Identifier Number  
<b>Application for Pesticide - Section I</b>			
1. Company/Product Number 100-1466		2. EPA Product Manager Ms. Heather A. Garvie	
4. Company/Product (Name) Acuron Herbicide		3. Proposed Classification <input type="checkbox"/> None <input checked="" type="checkbox"/> Restricted	
5. Name and Address of Applicant (Include ZIP Code) Syngenta Crop Protection, LLC P. O. Box 18300 Greensboro, NC 27419 <input type="checkbox"/> Check if this is a new address		6. Expedited Review. In accordance with FIFRA Section 3(c)(3) (b)(i), my product is similar or identical in composition and labeling to: EPA Reg. No. _____ Product Name _____	
<b>Section - II</b>			
<input type="checkbox"/> Amendment - Explain below. <input checked="" type="checkbox"/> Final printed labels in response to Agency letter dated <u>October 7, 2015</u>			
<input type="checkbox"/> Resubmission in response to Agency letter dated _____ <input type="checkbox"/> "Me Too" Application.			
<input type="checkbox"/> Notification - Explain below. <input type="checkbox"/> Other - Explain below.			
<b>Explanation:</b> Use additional page(s) if necessary. (For Section I and Section II.) Syngenta Crop Protection, LLC hereby submits one copy of final printed labeling for Acuron Herbicide (EPA Reg. No. 100-1466), as requested in your approval letter dated October 7, 2015. The final printed labeling includes only a subset of the approved directions for use, as allowed by 40 CFR 152.130(b).			
<b>Section - III</b>			
<b>1. Material This Product Will Be Packaged In:</b>			
Child-Resistant Packaging <input type="checkbox"/> Yes* <input checked="" type="checkbox"/> No	Unit Packaging <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Water Soluble Packaging <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	2. Type of Container <input type="checkbox"/> Metal <input checked="" type="checkbox"/> Plastic <input type="checkbox"/> Glass <input type="checkbox"/> Paper <input type="checkbox"/> Other (Specify) _____
*Certification must be submitted		If "Yes" Unit Packaging wgt. No. per Container _____	If "Yes" Unit Packaging wgt. No. per container _____
3. Location of Net Contents Information <input checked="" type="checkbox"/> Label <input type="checkbox"/> Container		4. Size(s) Retail Container 2.5 and 220 gallons, Bulk	
		5. Location of Label Directions <input checked="" type="checkbox"/> On Label <input type="checkbox"/> On Labeling accompanying product	
6. Manner in Which Label is Affixed to Product		<input type="checkbox"/> Lithograph <input type="checkbox"/> Paper glued <input type="checkbox"/> Stenciled <input checked="" type="checkbox"/> Other <u>Pressure Sensitive</u>	
<b>Section - IV</b>			
1. Contact Point (Complete items directly below for identification of individual to be contacted, if necessary, to process this application.)			
Name Tamara Murphy		Title NAFTA Senior Regulatory Product Manager, Herbicides Regulatory Affairs Telephone No. (Include Area Code) 336-632-2409	
<b>Certification</b> I certify that the statements I have made on this form and all attachments thereto are true, accurate and complete. I acknowledge that any knowingly false or misleading statement may be punishable by fine or imprisonment or both under applicable law.			6. Date Application Received (Stamped)
2. Signature 		3. Title NAFTA Senior Regulatory Product Manager, Herbicides Regulatory Affairs	
4. Typed Name Tamara Murphy		5. Date November 25, 2015	

PULL HERE TO OPEN ►

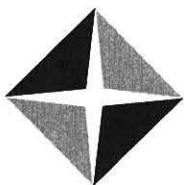
## RESTRICTED USE PESTICIDE (GROUND AND SURFACE WATER CONCERNS)

FOR RETAIL SALE TO AND USE ONLY BY CERTIFIED APPLICATORS OR PERSONS UNDER THEIR DIRECT SUPERVISION,  
AND ONLY FOR THOSE USES COVERED BY THE CERTIFIED APPLICATOR'S CERTIFICATION.

THIS PRODUCT IS A RESTRICTED-USE HERBICIDE DUE TO GROUND AND SURFACE WATER CONCERNS. USERS  
MUST READ AND FOLLOW ALL PRECAUTIONARY STATEMENTS AND INSTRUCTIONS FOR USE IN ORDER TO  
MINIMIZE POTENTIAL FOR ATRAZINE TO REACH GROUND AND SURFACE WATER.

Sale, use and distribution of this product in Nassau and  
Suffolk Counties in the State of New York is prohibited.

GROUP 5 | 15 | 27 HERBICIDES



# Acuron<sup>®</sup>

## Herbicide

syngenta.

A Herbicide for Control of Annual Grass and Broadleaf Weeds in Field Corn,  
Seed Corn, Silage Corn, Sweet Corn and Yellow Popcorn

*Active Ingredients\*:*

S-Metolachlor: (CAS No. 87392-12-9) .....	23.40%
Atrazine**: (CAS No. 1912-24-9) .....	10.93%
Mesotrione: (CAS No. 104206-82-8) .....	2.60%
Bicyclopyrone: (CAS No. 352010-68-5) .....	0.65%

<i>Other Ingredients:</i>	62.42%
<i>Total:</i>	100.00%

\*Active ingredients per gallon: Atrazine 1.0 pound, Bicyclopyrone 0.06 pounds,  
Mesotrione 0.24 pounds and S-metolachlor 2.14 pounds.

\*\*Atrazine with a maximum of 0.45% related triazines.

**KEEP OUT OF REACH OF CHILDREN.**

## CAUTION

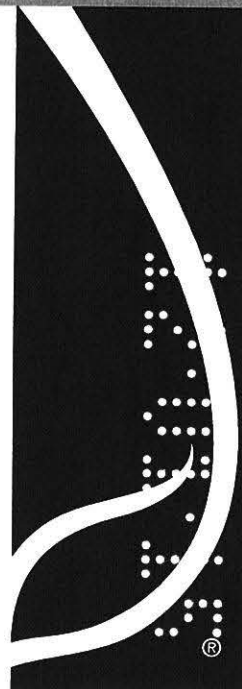
See additional precautionary statements and directions for use on label.

EPA Reg. No. 100-1466

EPA Est. 100-LA-001

SCP 1466A-L1A 1015  
4059261

**2.5 gallons**  
Net Contents



<b>FIRST AID</b>	
<b>If swallowed</b>	<ul style="list-style-type: none"> <li>• Call a Poison Control Center or doctor immediately for treatment advice.</li> <li>• Have person sip a glass of water if able to swallow.</li> <li>• Do not induce vomiting unless told to do so by a poison control center or doctor.</li> <li>• Do not give anything to an unconscious person.</li> </ul>
<b>If in eyes</b>	<ul style="list-style-type: none"> <li>• Hold eye open and rinse slowly and gently with water for 15-20 minutes.</li> <li>• Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye.</li> <li>• Call a Poison Control Center or doctor for treatment advice.</li> </ul>
<b>If on skin or clothing</b>	<ul style="list-style-type: none"> <li>• Take off contaminated clothing.</li> <li>• Rinse skin immediately with plenty of water for 15-20 minutes.</li> <li>• Call a Poison Control Center or doctor for treatment advice.</li> </ul>
<b>If inhaled</b>	<ul style="list-style-type: none"> <li>• Move person to fresh air.</li> <li>• If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth, if possible.</li> <li>• Call a Poison Control Center or doctor for further treatment advice.</li> </ul>
Have the product container or label with you when calling a poison control center or doctor, or going for treatment.	
<p align="center"><b>HOT LINE NUMBER</b>  For 24 Hour Medical Emergency Assistance (Human or Animal)  or Chemical Emergency Assistance (Spill, Leak, Fire or Accident),  Call  <b>1-800-888-8372</b></p>	

## PRECAUTIONARY STATEMENTS

### Hazards to Humans and Domestic Animals

#### CAUTION

Harmful if swallowed. Causes moderate eye injury. Avoid contact with eyes, skin, or clothing. Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals.

#### Personal Protective Equipment (PPE)

Some materials that are chemical-resistant to this product are listed below.

#### Mixers, Loaders, Applicators and other handlers must wear:

- Coveralls over short-sleeved shirt and short pants
- Chemical-resistant gloves – Category A (e.g. barrier laminate, butyl rubber, nitrile rubber, neoprene rubber, natural rubber, polyethylene, polyvinyl chloride (PVC) or Viton®)
- Chemical-resistant footwear plus socks
- Chemical-resistant apron when mixing/loading, cleaning up spills, or cleaning equipment, or otherwise exposed to the concentrate
- Chemical-resistant headgear for overhead exposure

See engineering controls for additional requirements.

Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables exist, use detergent\* and hot water. Keep and wash PPE separately from other laundry. Discard clothing and other absorbent materials that have been drenched or heavily contaminated with this product's concentrate. Do not reuse them.

*continued...*



## PRECAUTIONARY STATEMENTS (*continued*)

### Engineering Control Statements

When applicators use closed systems or enclosed cabs in a manner that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides [40 CFR 170.240(d)(5)], the handler PPE requirements may be reduced or modified as specified in the WPS.

### User Safety Recommendations

#### Users should:

- Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet.
- Remove clothing/PPE immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.
- Remove PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

### Environmental Hazards

Do not apply directly to water, to areas where surface water is present, or to intertidal areas below the mean high water mark. Do not contaminate water when disposing of equipment wash water or rinsate. This product contains atrazine, which has been shown to be toxic to aquatic invertebrates. Runoff and drift from treated areas may be hazardous to aquatic organisms in neighboring areas. Do not apply when weather conditions favor drift from treated areas.

### Ground Water Advisory

Acuron contains the active ingredients atrazine, S-metolachlor, bicyclopyrone and mesotrione.

Atrazine can travel (seep or leach) through soil and can enter ground water which may be used as drinking water. Atrazine has been found in ground water. Users are advised not to apply atrazine to sand and loamy sand soils where the water table (ground water) is close to the surface and where these soils are very permeable, i.e., well-drained. Your local agricultural agencies can provide further information on the type of soil in your area and the location of ground water.

S-metolachlor has the potential to leach through soil into ground water under certain conditions as a result of agricultural use. Use of this product in areas where soils are permeable, particularly where the water table is shallow may result in ground water contamination.

Bicyclopyrone is known to leach through soil into ground water under certain conditions as a result of label use. This chemical may leach into ground water if used in areas where soils are permeable, particularly where the water table is shallow.

### Surface Water Advisory

This product has a high potential for reaching surface water via runoff for several months or more after application. A level, well-maintained vegetative buffer strip between areas to which this product is applied and surface water features such as ponds, streams, and springs will reduce the potential loading of bicyclopyrone, atrazine, S-metolachlor and mesotrione from runoff water and sediment. Runoff of this product will be reduced by avoiding applications when rainfall or irrigation is expected to occur within 48 hours.

### Mixing/Loading Instructions

Care must be taken when using this product to prevent back-siphoning into wells, spills, or improper disposal of excess pesticide, spray mixtures, or rinsates.

Check valves or antisiphoning devices must be used on mixing equipment.

This product must not be mixed/loaded or used within 50 ft of wells, including abandoned wells, drainage wells, and sink holes. Operations that involve mixing, loading, rinsing, or washing to this product into or from pesticide handling or application equipment or containers within 50 ft of any well are prohibited, unless conducted on an impervious pad constructed to withstand the weight of the heaviest load that may be positioned on or moved across the pad. Such a pad shall be designed and maintained to contain any product spills or equipment leaks, container or equipment rinse or wash water, and rain water that may fall on the pad. Surface water shall not be allowed to either flow over or from the pad, which means the pad must be self-contained. The pad shall be sloped to facilitate material removal. An unroofed pad shall be of

sufficient capacity to contain, at a minimum, 110% of the capacity of the largest pesticide container or application equipment on the pad. A pad that is covered by a roof of sufficient size to completely exclude precipitation from contact with the pad shall have a minimum containment capacity of 100% of the capacity of the largest pesticide container or application equipment on the pad. Containment capacities as described above shall be maintained at all times. The above specified minimum containment capacities do not apply to vehicles when delivering pesticide shipments to the mixing/loading site.

Additional State imposed requirements regarding well head setbacks and operational area containment must be observed.

This product must not be mixed or loaded within 50 ft of perennial or intermittent streams and rivers, natural or impounded lakes and reservoirs. This product may not be applied within 66 ft of the points where field surface water runoff enters perennial or intermittent streams and rivers or within 200 ft from the edge of natural or impounded lakes and reservoirs. If this product is applied to highly erodible land, the 66 ft buffer or setback from runoff entry points must be planted to crop, or seeded with grass or other suitable crop.

#### **Tile-Outletted Terraced Fields Containing Standpipes**

One of the following restrictions must be used in applying atrazine to tile-outletted terraced fields containing standpipes:

1. Do not apply this product within 66 ft of standpipes in tile-outletted terraced fields.
2. Apply this product to the entire tile-outletted terraced field and immediately incorporate it to a depth of 2-3 inches in the entire field.
3. Apply this product to the entire tile-outletted terraced field under a no-till practice only when a high crop residue management practice is practiced. High crop residue management is described as a crop management practice where little or no crop residue is removed from the field during and after crop harvest.

#### **Physical and Chemical Hazards**

Do not use or store near heat or open flame.

### **CONDITIONS OF SALE AND LIMITATION OF WARRANTY AND LIABILITY**

**NOTICE:** Read the entire Directions for Use and Conditions of Sale and Limitation of Warranty and Liability before buying or using this product. If the terms are not acceptable, return the product at once, unopened, and the purchase price will be refunded.

The Directions for Use of this product must be followed carefully. It is impossible to eliminate all risks inherently associated with the use of this product. Crop injury, ineffectiveness or other unintended consequences may result because of such factors as manner of use or application, weather or crop conditions, presence of other materials or other influencing factors in the use of the product, which are beyond the control of SYNGENTA CROP PROTECTION, LLC or Seller. To the extent permitted by applicable law, Buyer and User agree to hold SYNGENTA and Seller harmless for any claims relating to such factors.

SYNGENTA warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes stated in the Directions for Use, subject to the inherent risks referred to above, when used in accordance with directions under normal use conditions. To the extent permitted by applicable law: (1) this warranty does not extend to the use of the product contrary to label instructions, or under conditions not reasonably foreseeable to or beyond the control of Seller or SYNGENTA, and, (2) Buyer and User assume the risk of any such use. To the extent permitted by applicable law, SYNGENTA MAKES NO WARRANTIES OF MERCHANTABILITY OR OF FITNESS FOR A PARTICULAR PURPOSE NOR ANY OTHER EXPRESS OR IMPLIED WARRANTY EXCEPT AS WARRANTED BY THIS LABEL.

To the extent permitted by applicable law, in no event shall SYNGENTA or Seller be liable for any incidental, consequential or special damages resulting from the use or handling of this product. **TO THE EXTENT PERMITTED BY APPLICABLE LAW, THE EXCLUSIVE REMEDY OF THE USER OR BUYER, AND THE EXCLUSIVE LIABILITY OF SYNGENTA AND SELLER FOR ANY AND ALL CLAIMS, LOSSES, INJURIES OR DAMAGES (INCLUDING CLAIMS BASED ON BREACH OF WARRANTY, CONTRACT, NEGLIGENCE, TORT, STRICT LIABILITY OR OTHERWISE) RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT, SHALL BE THE RETURN OF THE PURCHASE PRICE OF THE PRODUCT OR, AT THE ELECTION OF SYNGENTA OR SELLER, THE REPLACEMENT OF THE PRODUCT.**

SYNGENTA and Seller offer this product, and Buyer and User accept it, subject to the foregoing Conditions of Sale and Limitation of Warranty and Liability, which may not be modified except by written agreement signed by a duly authorized representative of SYNGENTA.

## DIRECTIONS FOR USE

It is a violation of Federal law to use this product in a manner inconsistent with its labeling.

ANY USE OF THIS PRODUCT IN AN AREA WHERE USE IS PROHIBITED IS A VIOLATION OF FEDERAL LAW. Before using this product, you must consult the Atrazine Watershed Information Center (AWIC) to determine whether the use of this product is prohibited in your watershed. AWIC can be accessed through [www.atrazine-watershed.info](http://www.atrazine-watershed.info) or 1-866-365-3014. If use of this product is prohibited in your watershed, you may return this product to your point of purchase or contact Syngenta Crop Protection, LLC for a refund.

Do not apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application. For any requirements specific to your State or Tribe, consult the agency responsible for pesticide regulation.

### AGRICULTURAL USE REQUIREMENTS

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR part 170. This Standard contains requirements for the protection of agricultural workers on farms, forests, nurseries, and greenhouses, and handlers of agricultural pesticides. It contains requirements for training, decontamination, notification, and emergency assistance. It also contains specific instructions and exceptions pertaining to the statements on this label about personal protective equipment (PPE), and restricted-entry interval. The requirements in this box only apply to uses of this product that are covered by the Worker Protection Standard.

**Do not enter or allow worker entry into treated areas during the restricted-entry interval (REI) of 24 hours.**

For early entry to treated areas that is permitted under the Worker Protection Standard and that involves contact with anything that has been treated, such as plants, soil and water, wear:

- Coveralls over short-sleeved shirt and short pants
- Chemical-resistant gloves – Category A (e.g. barrier laminate, butyl rubber, nitrile rubber, neoprene rubber, natural rubber, polyethylene, polyvinyl chloride (PVC) or Viton)
- Chemical resistant footwear plus socks
- Chemical-resistant headgear for overhead exposure.

**FAILURE TO FOLLOW THE DIRECTIONS FOR USE AND PRECAUTIONS ON THIS LABEL MAY RESULT IN POOR WEED CONTROL, CROP INJURY, OR ILLEGAL RESIDUES.**

Sale, use and distribution of this product in Nassau and Suffolk Counties in the State of New York is prohibited.

### PRODUCT INFORMATION

Acuron may be used preemergence and postemergence in the culture of field corn, seed corn, and silage corn. Acuron may also be used in the culture of sweet corn and yellow popcorn but the application must be made prior to crop emergence, (i.e., preemergence) or severe crop injury may occur.

Acuron is a combination of the herbicides: atrazine, bicyclopyrone, mesotrione and S-metolachlor plus the safener benoxacor. Acuron is recommended for management of the weed species listed in Tables 1 and 2.

#### ATRAZINE, BICYCLOPYRONE, MESOTRIONE AND S-METOLACHLOR HERBICIDE RATE LIMITATIONS

Certain states may have established rate limitations within specific geographical areas for the use of atrazine. These more restrictive/protective requirements must be followed. Consult your state lead pesticide control agency for additional information. It is a violation of this label to deviate from state use regulations.

- When tank mixing or sequentially applying atrazine or products containing atrazine with Acuron to corn, do not exceed an application rate of 2.0 lb active ingredient of atrazine per acre for any single application and the total pounds of atrazine applied (lb ai per acre) must not exceed 2.5 lb active ingredient per acre per year.

- Maximum broadcast application rates for atrazine in corn must be as follows:
  - If no atrazine was applied prior to corn emergence, apply a maximum of 2.0 lb ai/A broadcast. If a postemergence treatment is required following an earlier herbicide application, the total atrazine applied may not exceed 2.5 lb ai/A per calendar year.
  - Apply a maximum of 2.0 lb ai/A as a single preemergence application on soils that are not highly erodible or on highly erodible soils (as defined by the Natural Resource Conservation Service) if at least 30% of the soil is covered with plant residues.
  - Apply a maximum of 1.6 lb ai/A as a single preemergence application on highly erodible (as defined by the Natural Resource Conservation Service) soils if <30% of the surface is covered with plant residues; or 2.0 lb ai/A if only applied postemergence.

**Note:** For purposes of calculating total atrazine active ingredient applied, Acuron contains 1.0 lb ai atrazine plus related per gallon.

Do not exceed label dosage rates, nor combined maximum annual rates for mesotrione (no more than 0.24 lb of mesotrione active ingredient must be applied per acre of corn per year), and S-metolachlor (the maximum annual use rate per year is 3.71 lb ai/A for corn). Do not apply more than 0.045 lb ai/A per year of bicyclopyrone for corn.

#### **ACURON USE PRECAUTIONS**

- Applied according to directions and under normal growing conditions, Acuron will not harm the treated crop. During germination and early stages of growth, extended periods of unusually cold and wet or hot and dry weather, insect or plant disease attack, carryover pesticide residues, the use of certain soil applied systemic insecticides, improperly placed fertilizers or soil insecticides, may weaken crop seedlings. Acuron used under these conditions could result in crop injury.
- Where reference is made to weeds partially controlled, partial control can either mean erratic control from good to poor or consistent control at a level below that generally considered acceptable for commercial weed control.
- Dry weather following preemergence application of Acuron or a Acuron tank mixture may reduce effectiveness. If possible, cultivate if weeds develop.
- Applying Acuron postemergence to corn that has received an at-plant application of Counter® insecticide can result in severe corn injury. Temporary corn injury may occur if Acuron is applied to emerged corn where organophosphate insecticides other than Counter were applied at planting.
- Postemergence (emerged corn) applications of any organophosphate or carbamate insecticide within 7 days before or 7 days after a Acuron application may result in severe corn injury.

#### **ACURON USE RESTRICTIONS**

- Grazing Restriction: To avoid possible illegal residues, do not graze or feed forage from treated areas for 45 days following application.
- Pre-Harvest Interval (PHI): Corn (for grain, seed, or silage) may be treated up to 12 inches tall. Do not harvest forage within 60 days after application.
- Do not apply more than 3.0 qt of Acuron per acre per growing year.
- Do not use aerial application to apply Acuron.
- Do not apply Acuron to sweet corn or yellow popcorn after the crop has emerged or severe crop injury may occur.
- Do not use Acuron on any crop other than corn (for grain, seed, or silage), sweet corn (preemergence applications only) or yellow popcorn (preemergence applications only).
- Do not use Acuron in the culture of white popcorn or ornamental (Indian) corn or injury may occur.
- Do not contaminate irrigation water used for crops or water used for domestic purposes.
- Thoroughly clean sprayer or other application device before using. Dispose of cleaning solution in a responsible manner. Do not use a sprayer or applicator contaminated with other materials, or crop damage or sprayer clogging of the application device may occur.

- Read and observe all precautions and limitations on this label and the label of each product used in tank mixtures.
- Do not make postemergence (emerged corn) applications of Acuron in a tank mix with any organophosphate or carbamate insecticide, or severe corn injury may occur.
- Do not apply under conditions which favor runoff or wind erosion of soil containing this product to non-target areas. To prevent off-site movement due to runoff or wind erosion:
  - Avoid treating powdery dry or light sand soils when conditions are favorable for wind erosion. Under these conditions, the soil surface should first be settled by rainfall or irrigation.
  - Do not apply to impervious substrates, such as paved or highly compacted surfaces.
  - Do not use tail water from the first flood or furrow irrigation of treated fields to treat nontarget crops, unless at least 1/2 inch of rainfall has occurred between application and the first irrigation.

### **RESISTANCE MANAGEMENT**

Acuron is a combination of atrazine, bicyclopyrone, mesotrione and S-metolachlor (Group 5 (atrazine), 15 (S-metolachlor), and 27 (bicyclopyrone and mesotrione) Herbicides).

Naturally occurring biotypes of certain weed species with resistance to triazines, ALS, PPO, Glycine (glyphosate) and HPPD herbicides are known to exist. If biotypes of weeds resistant to triazines, ALS, PPO and glycine inhibitors are present in the field, this herbicide should control them if they are listed in Tables 1 and 2.

To reduce the risk of weeds developing resistance to HPPD inhibitors, implement a program including both preemergence and/or postemergence herbicides that provide effective control of all weeds using multiple modes of action. This includes scouting fields before application to ensure the herbicide will be appropriate for the weeds present. Scout fields and eliminate weed escapes. If suspected weed resistance is observed against a particular weed species contact your Syngenta or retailer representative or call Syngenta Customer Service (1-800-334-9481). Lack of weed control is not necessarily an indicator of weed resistance.

Consider weed resistance management strategies that include two or more modes of action where a minimum of two modes of action are effective at controlling the target weed when either are applied alone.

Read and follow all label directions.

Acuron Herbicide contains four herbicide active ingredients and three modes of action and can be an effective component of a weed resistance management strategy.

### **INTEGRATED PEST (WEED) MANAGEMENT**

Acuron may be integrated into an overall pest management strategy. Practices known to reduce weed development (tillage, crop competition) and herbicide use (weed scouting, proper application timing, banding, and rotations) should be followed wherever possible. Consult local agricultural and weed authorities for additional Integrated Pest Management strategies established for your area.

### **SOIL ORGANIC MATTER**

Determine the organic matter of the soil on which the application is to be made prior to application. The use rate of Acuron is based on percent soil organic matter.

### **REDUCED AND NO-TILL SYSTEMS**

Acuron may be used in reduced and no-till systems. The highest levels of control will be obtained when applications are made as close to planting as possible. It is recommended that a burndown herbicide such as Gramoxone®, Touchdown® brands, Roundup® brands, or 2,4-D be tank mixed with Acuron in reduced or no-till systems if weeds are present at application and the corn has not yet emerged.

## WEEDS CONTROLLED

Acuron applied as directed in this label will control or suppress the weeds listed in Tables 1 and 2. Additional weeds may be controlled with tank mixes. See the **Acuron Tank Mix Combinations** section for recommended tank mix combinations. Always consult the tank mix product labels for specific rates and use directions.

**Table 1. Weeds Controlled or Partially Controlled by Preemergence Applications of Acuron**

Common Name	Scientific Name	Weed Rating <sup>1</sup>
<b>Broadleaf Weeds</b>		
Amaranth, Palmer	<i>Amaranthus palmeri</i>	C
Amaranth, Powell	<i>Amaranthus powellii</i>	C
Bedstraw, catchweed	<i>Galium aparine</i>	PC
Beggarweed, Florida	<i>Desmodium tortuosum</i>	C
Buckwheat, wild	<i>Polygonum convolvulus</i>	C
Buffalobur	<i>Solanum rostratum</i>	C
Carpetweed	<i>Mollugo verticillata</i>	C
Chickweed, common	<i>Stellaria media</i>	C
Cocklebur, common	<i>Xanthium strumarium</i>	C <sup>2</sup>
Deadnettle, purple	<i>Lamium purpureum</i>	C
Devil's-claw	<i>Proboscidea louisianica</i>	C
Galinsoga	<i>Galinsoga parviflora</i>	C
Henbit	<i>Lamium amplexicaule</i>	C
Horseweed (maretail)	<i>Conyza canadensis</i>	C
Jimsonweed	<i>Datura stramonium</i>	C
Kochia	<i>Kochia scoparia</i>	C
Lambsquarters, common	<i>Chenopodium album</i>	C
Mallow, Venice	<i>Hibiscus trionum</i>	C
Morningglory, ivyleaf/entireleaf	<i>Ipomoea hederacea</i>	C <sup>2</sup>
Mustard, wild	<i>Brassica kaber</i>	C
Nightshade, black	<i>Solanum nigrum</i>	C
Nightshade, eastern black	<i>Solanum ptycanthum</i>	C
Nightshade, hairy	<i>Solanum sarrachoides</i>	C
Pigweed, redroot	<i>Amaranthus retroflexus</i>	C
Pigweed, smooth	<i>Amaranthus hybridus</i>	C
Puncturevine	<i>Tribulus terrestris</i>	C
Purslane, common	<i>Portulaca oleracea</i>	C
Pusley, Florida	<i>Richardia scabra</i>	C

continued...



**Table 1. Weeds Controlled or Partially Controlled by Preemergence Applications of Acuron (continued)**

Common Name	Scientific Name	Weed Rating <sup>1</sup>
<b>Broadleaf Weeds</b>		
Radish, wild	<i>Raphanus raphanistrum</i>	C
Ragweed, common	<i>Ambrosia artemisiifolia</i>	C
Ragweed, giant	<i>Ambrosia trifida</i>	C
Sesbania, hemp	<i>Sesbania exaltata</i>	C
Shepherd's-purse	<i>Capsella bursa-pastoris</i>	C
Sicklepod	<i>Cassia obtusifolia</i>	C
Sida, prickly	<i>Sida spinosa</i>	PC
Smartweed, ladysthumb	<i>Polygonum persicaria</i>	C
Smartweed, Pennsylvania	<i>Polygonum pensylvanicum</i>	C
Sunflower, common	<i>Helianthus annuus</i>	PC
Thistle, Russian	<i>Salsola tragus</i>	C
Velvetleaf	<i>Abutilon theophrasti</i>	C
Waterhemp, common	<i>Amaranthus rudis</i>	C
Waterhemp, tall	<i>Amaranthus tuberculatus</i>	C
<b>Grass Weeds</b>		
Barnyardgrass	<i>Echinochloa crus-galli</i>	C
Crabgrass	<i>Digitaria</i> spp.	C
Crowfootgrass	<i>Dactyloctenium aegyptium</i>	C
Cupgrass, prairie	<i>Eriochloa contracta</i>	C
Cupgrass, Southwestern	<i>Eriochloa gracilis</i>	C
Cupgrass, woolly	<i>Eriochloa villosa</i>	PC
Foxtail, giant	<i>Setaria faberi</i>	C
Foxtail, green	<i>Setaria viridis</i>	C
Foxtail, robust (purple, white)	<i>Setaria</i> spp.	C
Foxtail, yellow	<i>Setaria pumila</i>	C
Goosegrass	<i>Eleusine indica</i>	C
Johnsongrass, seedling	<i>Sorghum halepense</i>	PC
Millet, foxtail	<i>Setaria italica</i>	C
Millet, wild proso	<i>Panicum miliaceum</i>	PC
Panicum, Texas	<i>Panicum texanum</i>	PC
Rice, red	<i>Oryza sativa</i>	C
Sandbur, field	<i>Cenchrus incertus</i>	PC

Common Name	Scientific Name	Weed Rating <sup>1</sup>
<b>Grass Weeds</b>		
Shattercane	<i>Sorghum bicolor</i>	PC
Signalgrass, broadleaf	<i>Brachiaria platyphylla</i>	C <sup>2</sup>
Signalgrass, narrowleaf	<i>Brachiaria piligera</i>	C
Sprangletop, red	<i>Leptochloa filiformis</i>	C
Starbur, bristly	<i>Acanthospermum hispidum</i>	C
Witchgrass	<i>Panicum capillare</i>	C
<b>Sedges</b>		
Nutsedge, Yellow	<i>Cyperus esculentus</i>	C

<sup>1</sup>C = Control, PC = Partial Control

<sup>2</sup>May require a tank-mix partner (e.g. atrazine) for control of heavy populations

Thoroughly till soil or make an application of a burndown herbicide to control emerging weeds. Plant crop immediately after tillage.

If a significant rainfall does not occur within 7 days after application, weed control may be decreased. If irrigation is available, apply 1/2 to 1 inch of water. If irrigation is not available, a uniform shallow cultivation is recommended as soon as weeds emerge.

**Table 2. Weeds Controlled or Partially Controlled by Early Postemergence Applications of Acuron**

Common Name	Scientific Name	Weed Rating <sup>1</sup>
<b>Broadleaf Weeds</b>		
Amaranth, Palmer	<i>Amaranthus palmeri</i>	C
Amaranth, Powell	<i>Amaranthus powellii</i>	C
Bedstraw, catchweed	<i>Galium aparine</i>	PC
Beggarweed, Florida	<i>Desmodium tortuosum</i>	C
Buckwheat, wild	<i>Polygonum convolvulus</i>	C
Buffalobur	<i>Solanum rostratum</i>	C
Carpetweed	<i>Mollugo verticillata</i>	C
Chickweed, common	<i>Stellaria media</i>	C
Cocklebur, common	<i>Xanthium strumarium</i>	C
Dandelion	<i>Taraxacum officinale</i>	PC
Deadnettle, purple	<i>Lamium purpureum</i>	C
Devil's-claw	<i>Proboscidea louisianica</i>	C
Galinsoga	<i>Galinsoga parviflora</i>	C
Hemp	<i>Cannabis sativa</i>	C
Henbit	<i>Lamium amplexicaule</i>	C
Horsenettle	<i>Solanum carolinense</i>	C

continue...

**Table 2. Weeds Controlled or Partially Controlled by Early Postemergence Applications of Acuron (continued)**

Common Name	Scientific Name	Weed Rating <sup>1</sup>
<b>Broadleaf Weeds</b>		
Horseweed (maretail)	<i>Conyza canadensis</i>	C
Jimsonweed	<i>Datura stramonium</i>	C
Kochia	<i>Kochia scoparia</i>	C
Lambsquarters, common	<i>Chenopodium album</i>	C
Mallow, Venice	<i>Hibiscus trionum</i>	C
Marestail	<i>Hippuris vulgaris</i>	C
Morningglory, ivyleaf/entireleaf	<i>Ipomoea hederacea</i>	C
Mustard, wild	<i>Brassica kaber</i>	C
Nightshade, black	<i>Solanum nigrum</i>	C
Nightshade, eastern black	<i>Solanum ptycanthum</i>	C
Nightshade, hairy	<i>Solanum sarachoides</i>	C
Pigweed, redroot	<i>Amaranthus retroflexus</i>	C
Pigweed, smooth	<i>Amaranthus hybridus</i>	C
Pokeweed	<i>Phytolacca americana</i>	C
Potatoes, volunteer	<i>Solanum</i> spp.	C
Purslane, common	<i>Portulaca oleracea</i>	C
Pusley, Florida	<i>Richardia scabra</i>	C
Radish, wild	<i>Raphanus raphanistrum</i>	C
Ragweed, common	<i>Ambrosia artemisiifolia</i>	C
Ragweed, giant	<i>Ambrosia trifida</i>	C
Sesbania, hemp	<i>Sesbania exaltata</i>	C
Shepherd's-purse	<i>Capsella bursa-pastoris</i>	C
Sida, prickly	<i>Sida spinosa</i>	C
Smartweed, ladythumb	<i>Polygonum persicaria</i>	C
Smartweed, Pennsylvania	<i>Polygonum pensylvanicum</i>	C
Sunflower, common	<i>Helianthus annus</i>	C
Thistle, Canada	<i>Cirsium arvense</i>	C
Velvetleaf	<i>Abutilon theophrasti</i>	C
Waterhemp, common	<i>Amaranthus rudis</i>	C
Waterhemp, tall	<i>Amaranthus tuberculatus</i>	C

Common Name	Scientific Name	Weed Rating <sup>1</sup>
<b>Grass Weeds</b>		
Barnyardgrass	<i>Echinochloa crus-galli</i>	PC <sup>2</sup>
Crabgrass, large	<i>Digitaria sanguinalis</i>	C <sup>2</sup>
Foxtail, giant	<i>Setaria faberii</i>	PC <sup>2</sup>
Signalgrass, broadleaf	<i>Brachiaria platyphylla</i>	C <sup>2</sup>

<sup>1</sup>C = Control, PC = Partial Control

<sup>2</sup>Apply before the weed exceeds 2 inches in height

A tank mix of AAtrex® with Acuron can provide additional control of certain emerged annual grass weeds. Refer to the AAtrex label for weeds controlled and other restrictions.

### ROTATIONAL CROPS

When Acuron is applied as directed on this label, follow the crop rotation intervals in Table 3. If Acuron is tank mixed with other products, follow the most restrictive product's crop rotation interval.

Do not rotate to food or feed crops other than those listed on this label.

**Table 3. Time Interval Between Acuron Application and Replanting or Planting of Rotational Crop**

Crop	Replant/Rotational Interval
Field corn Seed corn Silage corn Sweet corn Yellow popcorn	Anytime <sup>1</sup>
Small grain cereals including wheat, barley and rye	4 Months
Cotton Dry beans <sup>2</sup> Peanuts Potato Rice Soybeans <sup>3,4</sup> Sorghum (all types)	10 Months <sup>5,6</sup>
All other rotational crops	18 Months

<sup>1</sup>Do not reapply Acuron.

<sup>2</sup>This rotational interval applies only to areas west of US highway 83 in the states of Colorado and Nebraska: If Acuron was applied to ground that was under center pivot irrigation and the soil pH is greater than 6.5, dry beans can be planted 10 months following application.

<sup>3</sup>Injury may occur to soybeans planted the year following application on soils having a calcareous surface layer if additional atrazine or atrazine-containing products are used.

<sup>4</sup>In eastern parts of the Dakotas, KS, western MN, and NE, do not rotate to soybeans for 18 months following application if the combined atrazine rate applied was more than 2.0 lb ai/A, or equivalent band application rate, or soybean injury may occur.

<sup>5</sup>If applied after June 1, rotating to crops other than corn (all types) may result in crop injury.

<sup>6</sup>In the High Plains and Intermountain areas of the West, where rainfall is sparse and erratic or where irrigation is required, use only when corn (all types) or sorghum is to follow corn, or a crop of untreated corn (all types) or sorghum is to precede other rotational crops.

## APPLICATION PROCEDURES

### ADJUVANTS

When an adjuvant is to be used with this product, the use of an adjuvant that meets the standards of the Chemical Producers and Distributors Association (CPDA) adjuvant certification program is recommended.

Where Acuron is applied after the corn has emerged, a non-ionic surfactant (NIS) at 0.25% v/v (1 qt/100 gal) may be used. The use of crop oil concentrate (COC) may result in temporary crop injury. If used, add COC at a rate not to exceed 1% v/v (1 gal/100 gal) or not more than the equivalent of 1 qt/A. Do not use nitrogen based adjuvants (AMS or UAN) or methylated seed oil (MSO) with Acuron when applied alone to emerged corn, or when Acuron is applied as a postemergence tank mixture with other products, unless directed for a specific tank mix on this label or as part of a supplemental Acuron label. Any of these adjuvants may be used at a preemergence or preplant timing, i.e. where the corn crop has not yet emerged to increase burndown activity on existing weeds. Do not apply Acuron to emerged sweet corn or yellow popcorn or severe crop injury may occur.

**Sprinkler Irrigation:** Do not apply Acuron by sprinkler irrigation. Use a sprinkler system only to incorporate Acuron after application. After Acuron has been applied, a sprinkler irrigation system set to deliver 1/2-1 inch of water may be used to incorporate the product. Using more than 1 inch of water could result in reduced performance. On sandy soil low in organic matter, use no more than 1/2 inch of water. Do not use flood irrigation to apply or incorporate Acuron.

### CULTIVATION

Should weeds develop; a shallow cultivation or rotary hoeing will generally result in improved weed control. If Acuron was incorporated, cultivate less than half the depth of incorporation.

If cultivation is necessary due to soil crusting, compaction, or escaped weeds, adjust equipment to run shallow and minimize soil movement. This will decrease the possibility of diluting or moving the herbicide from the weed control zone.

## SPRAY EQUIPMENT

### Ground Application

Spray nozzles should be uniformly spaced, the same size and type, and should provide accurate and uniform application. Use spray nozzles that provide medium to coarse droplet size to avoid drift yet provide good coverage. Ensure that all in-line strainer and nozzle screens in the sprayer are 50-mesh or coarser. Use a pump that can maintain the manufacturer's recommended pressure at the nozzles and provide proper agitation within the tank to keep the product dispersed. Lower pressures may be used with extended range or drift reduction nozzles as long as adequate coverage is maintained. Always ensure that agitation is maintained until spraying is completed, even if stopped for brief periods of time. If the agitation is stopped for more than 5 minutes, re-suspend the spray solution by running on full agitation prior to spraying.

**Preemergence:** Apply in a spray volume of 10-80 gal/A.

**Early Postemergence:** Good weed coverage is essential for optimum weed control. Boom height for broadcast over-the-top applications should be based on the height of the crop – at least 15 inches above the crop canopy, but only high enough to give uniform coverage. Apply in a spray volume of 10-30 gal/A. When weed foliage is dense, use a minimum spray volume of 20 gal/A. Flat fan nozzles of 80° or 110° are recommended for optimum postemergence coverage. Do not use floodjet nozzles or controlled droplet application equipment for postemergence applications. Nozzles may be angled forward 45° to enhance penetration of the crop and provide better coverage.

### Aerial Prohibition

Do not apply by air.

### Spray Drift

Do not apply when weather conditions may cause drift to nontarget areas. Drift may result in injury to adjacent crops and vegetation. To avoid spray drift, DO NOT apply when the wind speed is greater than 10 mph or during periods of temperature inversions.

AVOIDING SPRAY DRIFT AT THE APPLICATION SITE IS THE RESPONSIBILITY OF THE APPLICATOR.

The interaction of equipment and weather related factors determine the potential for spray drift. The applicator is responsible for considering these factors when making a decision.

#### **Information on Droplet Size**

The most effective way to reduce spray drift potential is to apply large droplets. Use only nozzles producing medium to ultra coarse droplets. Do not use nozzles producing fine droplets.

#### **Controlling Droplet Size**

- **Volume** - Use high flow rate nozzles to apply the highest practical spray volume. Nozzles with higher rated flows produce larger droplets.
- **Pressure** - Do not exceed the nozzle manufacturer's recommended pressures. For many nozzle types, lower pressure produces larger droplets. When higher flow rates are needed, use higher rate nozzles instead of increasing pressure.
- **Number of Nozzles** - Use the minimum number of nozzles that provide uniform coverage.

#### **Application Height**

Applications must be made at the lowest height above the target area that still provides uniform coverage of the target. Making applications at the lowest yet effective height reduces exposure of droplets to wind.

#### **Wind**

Drift potential is lowest when wind speeds are 10 mph or less. However, many factors, including droplet size, pressure, and equipment type determine drift potential at any given wind speed. **Note:** Local terrain can influence wind patterns.

Leave a 25-foot buffer downwind of the application to avoid drift to non-target areas. This buffer may be untreated corn rows or field border species maintained for this purpose.

#### **Temperature Inversions**

Applications must not occur during a temperature inversion because drift potential is high. Temperature inversions restrict vertical air mixing, which causes small suspended droplets to remain in a concentrated cloud. This cloud can move in unpredictable directions due to the light variable winds common during inversions. Temperature inversions are characterized by increasing temperatures with altitude and are common on nights with limited cloud cover and light to no wind. They begin to form as the sun sets and often continue into the morning. Their presence can be indicated by ground fog; however, if fog is not present, inversions can also be identified by the movement of smoke from a ground source or an aircraft smoke generator. Smoke that layers and moves laterally in a concentrated cloud (under low wind conditions) indicates an inversion, while smoke that moves upward and rapidly dissipates, indicates good vertical air mixing.

#### **Non-Target Areas**

Do not apply this pesticide when the product may drift to non-target areas (i.e. residential areas, bodies of water, known habitat for threatened or endangered species, non-target crops).

#### **Cleaning Equipment After Application**

Special attention must be given to cleaning equipment before spraying a crop other than corn. Mix only as much spray solution as needed.

1. Flush tank, hoses, boom, and nozzles with clean water.
2. Prepare a cleaning solution of 1 gal of household ammonia per 25 gal of water. Many commercial spray tank cleaners may be used.
3. Use a pressure washer to clean the inside of the spray tank with this solution. Take care to wash all parts of the tank, including the inside top surface. If a pressure washer is not available, completely fill the sprayer with the cleaning solution to ensure contact of the cleaning solution with all internal surfaces of the tank and plumbing. Start agitation in the sprayer and thoroughly recirculate the cleaning solution for at least 15 minutes. Remove all visible deposits from the spraying system.
4. Flush hoses, spray lines, and nozzles for at least 1 minute with the cleaning solution.
5. Dispose of rinsate from steps 1-3 in an appropriate manner.
6. Repeat steps 2-5.
7. Remove nozzles, screens, and strainers and clean separately in the ammonia solution after completing the above procedures.
8. Rinse the complete spraying system with clean water.



## MIXING PROCEDURES

### CARRIER

**Preemergence Applications:** Either clean water or liquid fertilizers, excluding suspension fertilizers, may be used as carriers for preemergence applications. If fluid fertilizers are used, a compatibility test must be done. See Compatibility Test section for compatibility testing. Even if Acuron is physically compatible with a fluid fertilizer, constant agitation is necessary to maintain a uniform mixture during application.

**Postemergence Applications:** Use only clean water as the carrier when applying Acuron after corn emergence. Do not apply Acuron to emerged sweet corn or yellow popcorn.

### ADDING ACURON TO THE SPRAY TANK

The spray tank must be clean, thoroughly rinsed and decontaminated before adding either Acuron alone or with tank mix partners. If water is used as the carrier, use clean water.

**Acuron Applied Alone:** When Acuron is used alone, add the recommended amount of Acuron to the spray tank when the tank is half full of the carrier, then add the rest of the water or fluid fertilizer. Provide sufficient agitation during mixing and application to maintain a uniform mixture.

**Acuron Applied in Tank Mixtures:** Refer to the sections on this label for recommended tank mixes. Always refer to labels of the tank mix partners for mixing directions and precautions. Do not exceed label dosage rates, nor combined maximum seasonal doses for atrazine, bicyclopyrone, mesotrione, or S-metolachlor. This product cannot be mixed with any product bearing a label prohibition against such mixing. If a tank mixture is used, a compatibility test must be done. See Compatibility Test section for details on the procedure for such a test.

If the tank mix partner is compatible, fill the tank half full of the carrier. Start and continue agitation throughout mixing and spraying. All return lines to the spray tank must discharge below the liquid level. Prepare the components and add in the following order:

1. If a wettable powder or dry flowable formulation is used, make a slurry with water and add it slowly through the screen into the tank. Agitate during the procedure.
2. If a flowable formulation is used, add slowly through screen into the tank. Mixing and compatibility may be improved when a dry flowable is diluted with water before adding to the tank.
3. Add Acuron.
4. Add any other tank mix products next with emulsifiable concentrates added last.
5. Add an adjuvant last, if needed.
6. Complete filling the sprayer tank and continue agitation. Apply as soon as possible after spray mixture is prepared. Do not leave mixture in spray tank overnight without agitation or unattended.

### TANK MIX COMPATIBILITY TEST

A compatibility test is recommended before tank mixing to ensure compatibility of Acuron with other pesticides. The following test assumes a spray volume of 25 gal/A. For other spray volumes, make appropriate changes in the ingredients.

**Note:** Nitrogen solutions or complete liquid fertilizers, excluding suspension fertilizers, may replace all or part of the water in the spray. Because liquid fertilizers vary, even within the same analysis, **always check compatibility with pesticide(s) before use.** Incompatibility of tank mixtures is more common with mixtures of fertilizer and pesticides.

#### Test Procedure

1. Add 1.0 pt of carrier (fertilizer or water) to each of two 1 qt jars with tight lids. **Note:** Use the same source of water that will be used for the tank mix and conduct the test at the temperature the tank mix will be applied.
2. To one of the jars, add 1/4 tsp or 1.2 milliliters of a compatibility agent approved for this use, such as Compex or Unite (1/4 tsp is equivalent to 2.0 pt/100 gal spray). Shake or stir gently to mix.
3. To both jars, add the appropriate amount of pesticide(s) in their relative proportions based on recommended label rates. If more than one pesticide is used, add them separately with dry pesticides first, flowables next, and emulsifiable concentrates last. After each addition, shake or stir gently to thoroughly mix.

4. After adding all ingredients, put lids on and tighten, and invert each jar 10 times to mix. Let the mixtures stand 15-30 minutes and then look for separation, large flakes, precipitates, gels, heavy oily film on the jar, or other signs of incompatibility. Determine if the compatibility agent is needed in the spray mixture by comparing the two jars. If either mixture separates, but can be remixed readily, the mixture can be sprayed as long as good agitation is used. If the mixtures are incompatible, test the following methods of improving compatibility: (a) slurry the dry pesticide(s) in water before addition, or (b) add 1/2 the compatibility agent to the fertilizer or water and the other 1/2 to the emulsifiable concentrate or flowable pesticide before addition to the mixture. If incompatibility is still observed, do not use the mixture.
5. After compatibility testing is complete, dispose of any pesticide wastes in accordance with the **Storage and Disposal** section in this label.

## CROP USE DIRECTIONS

Acuron is to be used for preemergence use for control of most annual grass and broadleaf weeds in field corn, seed corn, silage corn, sweet corn and yellow popcorn. Acuron may also be applied early postemergence for the control of broadleaf weeds in field corn, seed corn and silage corn. Do not apply Acuron to emerged sweet corn or yellow popcorn or severe crop injury will occur.

See Table 1 and 2 for a list of weeds controlled.

**Acuron Use Rate:** Determine the soil organic matter content of the field on which Acuron is to be applied. On soils with greater than 10% organic matter, Acuron activity may be affected resulting in reduced or poor weed control.

Soil Organic Matter Content	Application rate <sup>1</sup>
<3%	2.5 qt/A
≥3%	3.0 qt/A

<sup>1</sup>Do not exceed 3.0 qt/A of Acuron per year.

## ACURON APPLIED ALONE

**Early Preplant:** Acuron may be applied up to 28 days prior to planting.

**Preemergence Surface:** Acuron may be applied to the soil surface as a broadcast or banded application.

**Early Postemergence:** Acuron may be applied after corn (for grain, seed, or silage) emergence. See the "Adjuvants" section of this label for specific recommendations. Do not apply early postemergence to corn in liquid fertilizer or severe crop injury may occur. Apply this treatment to small broadleaf weeds (less than 3 inches tall). Occasional corn leaf burn may result, but this will not affect later growth or corn yield. Do not apply Acuron to emerged sweet corn or yellow popcorn or severe crop injury may occur. Postemergence applications to corn must be made before crop reaches 12 inches in height.

This product will not provide consistent control of emerged grass weeds. For control of emerged grass weeds a grass herbicide tank mix may be required (see tank mix section of this label). Tank mixes of AAtrex can improve control of emerged annual grass and broadleaf weeds. Refer to the AAtrex label for weeds controlled and use restrictions.

If Bicep II Magnum®, Bicep Lite II Magnum®, AAtrex (atrazine), Dual Magnum®, or Dual II Magnum® alone or in tank mixtures have been applied early preplant, preplant surface, preplant incorporated, or preemergence, limit the Acuron early post application to not exceed a total of 2.5 lb of active ingredient of atrazine or 3.75 lb of S-metolachlor active per acre, or illegal residues may result.

**Split Application:** Acuron may be applied as a split application in corn (for grain, seed, or silage). For a split application program apply 1/2 to 2/3 of the labeled rate of Acuron prior to crop emergence followed by a second Acuron application at 1/3 to 1/2 of the labeled rate as a post application after corn emergence. The total amount of Acuron applied in the split application program cannot exceed 2.5 qt/A in soils with <3% OM and cannot exceed 3.0 qt/A in soils with ≥3% OM. Refer to the **Early Postemergence** section above for instructions on postemergence applications.

## ACURON TANK MIX COMBINATIONS

### Use of Spray Adjuvants with Tank Mixtures

When Acuron is used as a preemergence herbicide, and before weeds have emerged, spray adjuvants have little or no influence on performance. However, in burndown situations where the weeds have emerged and the corn has not, an adjuvant may be used with Acuron applied alone or when applied in tank mixture with a burndown herbicide as allowed on the individual product labels. Use only those adjuvants approved for agricultural crop use. See the "Adjuvants" section under "Application Procedures" for further instructions.

### Burndown Combinations for Reduced Tillage Situations

In reduced or no-till corn and before the crop has emerged, Acuron tank mixes with Gramoxone brands or Touchdown brands (or other glyphosate products such as Roundup brands) will burndown emerged weeds. For best results, tank mixes of Acuron plus Gramoxone should be applied to emerged weeds that are 1-6 inches in height. Consult the Gramoxone, Touchdown brand, or glyphosate product label for further information on weeds controlled and application timings.

### Preemergence Tank Mixtures Applied Before Corn Emergence

The tank-mix partners listed in Table 4 may be used in either conventional, reduced, or no-till systems and be applied by the same methods and at the same timings as Acuron unless otherwise specified in the tank mix product label. Follow all tank mix product labels for use rates and restrictions. Perform a compatibility test prior to spraying the tank mix application. Tank mixtures with 2,4-D are allowed, but should only be done with extreme care with regard to ensuring compatibility before mixing a load. 2,4-D products, and even batches, vary greatly with regard to compatibility and should be checked each time a water or carrier source, water or carrier temperature, product source, or tank mixture recipe is changed.

**Table 4: Tank Mixtures for Preemergence Applications with Acuron**

Tank Mix	Rate (Max)	Objective
AAtrex or other solo Atrazine products	0.5-1.25 lb ai/A	Improved broadleaf and grass weed control
Princep®	0.5-1.3 lb ai/A	Improved broadleaf and grass weed control
Gramoxone brands	See product label	Burndown existing weeds
Touchdown brands	See product label	Burndown existing weeds
Roundup or other glyphosate brands	See product label	Burndown existing weeds
Warrior brands	See product label	To control insects, such as cutworm

### Early Postemergence Tank Mixtures Applied After Corn Emergence

The tank mix partners listed in Table 5 may be used in conventional, reduced or no-till systems and can be applied by the same methods and at the same timings as Acuron unless otherwise specified in the tank mix product label. Follow all tank mix product labels for use rates and restrictions. Perform a compatibility test prior to spraying the tank mix application. Do not apply Acuron tank mixtures to emerged sweet corn or yellow popcorn.

**Table 5: Tank Mixtures for Early Postemergence Weed Control with Acuron**

Tank Mix <sup>1</sup>	Rate (Max)	Objective
AAtrex or other solo Atrazine products	0.5-1.25 lb ai/A	Improved broadleaf and annual grass weed control
Warrior brands	3.84 fl oz/A	To control insects, such as cutworm
Accent® Q	As per product label	Emerged grass control
Basis® brands	As per product label	Emerged grass control
Steadfast® Q	As per product label	Emerged grass control

<sup>1</sup>Consult the "Adjuvant" section of this label for directions when applying Acuron alone or in tank mixture to emerged corn (for grain, seed, or silage).

### **Acuron Programs with Glyphosate in Glyphosate Tolerant Corn**

Acuron may be applied early postemergence at a rate of 1.5-2 qt/A in tank mixture with a solo glyphosate product (e.g. Touch-down or Roundup brands) that is registered for use over-the-top in glyphosate tolerant field corn (e.g. Roundup Ready or Agrisure™ GT Corn). To minimize weed competition with the crop, target the application of this mixture to weeds in the 1 to 2 inch range. Do not apply this mixture to corn that is greater than 12 inches tall. If the glyphosate product has a built-in adjuvant system (i.e. the product label does not ask for additional adjuvant), only spray-grade ammonium sulfate (AMS) at 8.5 lb/100 gal should be added to this mixture. If the glyphosate product label calls for an adjuvant in addition to AMS, add a non-ionic surfactant (NIS) at 0.25% v/v and AMS to this spray mixture. Do not add urea ammonium nitrate (UAN), crop oil concentrate (COC), or methylated seed oil (MSO) type adjuvants to these mixtures, or crop injury may occur. Follow all directions for use and restrictions on the glyphosate product label.

Alternatively, Acuron may be applied preemergence at a rate down to 2 qt/A as part of a two-pass weed control system when followed by a postemergence application of a glyphosate based product in glyphosate tolerant corn (e.g. Roundup Ready or Agrisure GT Corn). When used in this way, Acuron will provide reduced competition of the weeds listed in Table 1 for a period of 30 or more days, thus improving the timing flexibility and effectiveness of the glyphosate based product application. Follow all directions for use and restrictions on the glyphosate product label.

Acuron may be applied preemergence at 1.25-1.5 qt/A as part of a two-pass weed control system when followed by Halex® GT postemergence in glyphosate tolerant corn (e.g. Roundup Ready or Agrisure GT Corn). Follow all directions for use and restrictions on each product label.

## **STORAGE AND DISPOSAL**

Do not contaminate water, food, or feed by storage or disposal.

### **Pesticide Storage**

Keep container tightly closed when not in use. Do not store near seeds, fertilizers, or foodstuffs. Keep away from heat and flame. Ground water contamination may be reduced by diking and flooring of permanent liquid bulk storage sites with an impermeable material.

### **Pesticide Disposal**

Open dumping is prohibited. Waste resulting from the use of this product may be disposed of on site or at an approved waste disposal facility. Rinse spray equipment. Pesticide wastes are acutely hazardous. Improper disposal of excess pesticide, spray mixture, or rinsate is a violation of Federal law. If these wastes cannot be disposed of as described above, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste Representative at the nearest EPA Regional Office for guidance.

*continued...*

## **STORAGE AND DISPOSAL (continued)**

### **Container Handling [equal to or less than 5 gallons]**

Non-refillable container. Do not reuse or refill this container. Offer for recycling if available. Triple rinse container (or equivalent) promptly after emptying. Triple rinse as follows: empty the remaining contents into application equipment of a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container  $\frac{1}{4}$  full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. Then offer for recycling if available or puncture and dispose of in a sanitary landfill, or by incineration, or by other procedures allowed by state and local authorities.

For minor spills, leaks, etc. follow all precautions on this label and clean up immediately. Take special care to avoid contamination of equipment and facilities during cleanup procedures and disposal of wastes. In the event of a major spill, fire, or other emergency, call 1-800-888-8372, day or night. If the container is damaged and leaking or material has been spilled follow these procedures:

1. Cover spill with absorbent material.
2. Sweep into disposal container.
3. Wash area with detergent and water and follow with clean water rinse.
4. Do not allow to contaminate water supplies.
5. Dispose of according to instructions.

### **Container Handling [greater than 5 gallons]**



Refillable container. Refill this container with pesticide only. Do not reuse this container for any other purpose. Cleaning the container before final disposal is the responsibility of the person disposing of the container. Cleaning before refilling is the responsibility of the refiller. To clean container before final disposal, empty the remaining contents from this container into application equipment or mix tank. Fill the container about 10 percent full with water. Agitate vigorously or recirculate water with the pump for 2 minutes. Pour or pump rinsate into application equipment or rinsate collection system. Repeat this rinsing procedure two more times. Then offer for recycling if available or puncture and dispose of in a sanitary landfill, or by incineration, or by other procedures allowed by state and local authorities.

For minor spills, leaks, etc. follow all precautions on this label and clean up immediately. Take special care to avoid contamination of equipment and facilities during cleanup procedures and disposal of wastes. In the event of a major spill, fire, or other emergency, call 1-800-8372, day or night. If the container is damaged and leaking or material has been spilled follow these procedures:

1. Cover spill with absorbent material.
2. Sweep into disposal container.
3. Wash area with detergent and water and follow with clean water rinse.
4. Do not allow to contaminate water supplies.
5. Dispose of according to instructions.

**CONTAINER IS NOT SAFE FOR FOOD, FEED, OR DRINKING WATER!**

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AAtrex®, Acuron®, Agrisure® GT, Bicep II Magnum®, Bicep Lite II Magnum®, Callisto®, Callisto Plant Technology®, Concep®, Dual II Magnum®, Dual Magnum®, Gramoxone®, Halex® GT, Princep®, Touchdown®, Warrior®, the ALLIANCE FRAME , the SYNGENTA Logo, and the PURPOSE ICON  are Trademarks of a Syngenta Group Company.

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Counter® is a trademark of BASF Corporation

Roundup® and Roundup Ready® are trademarks of Monsanto Company

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For non-emergency information (e.g., current product information), call Syngenta Crop Protection at 1-800-334-9481
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Manufactured for:  
Syngenta Crop Protection, LLC  
P. O. Box 18300  
Greensboro, North Carolina 27419-8300

**SCP 1466A-L1A 1015**  
**4059261**



# RESTRICTED USE PESTICIDE

## (GROUND AND SURFACE WATER CONCERNS)

FOR RETAIL SALE TO AND USE ONLY BY CERTIFIED APPLICATORS OR PERSONS UNDER THEIR DIRECT SUPERVISION, AND ONLY FOR THOSE USES COVERED BY THE CERTIFIED APPLICATOR'S CERTIFICATION.

THIS PRODUCT IS A RESTRICTED-USE HERBICIDE DUE TO GROUND AND SURFACE WATER CONCERNS. USERS MUST READ AND FOLLOW ALL PRECAUTIONARY STATEMENTS AND INSTRUCTIONS FOR USE IN ORDER TO MINIMIZE POTENTIAL FOR ATRAZINE TO REACH GROUND AND SURFACE WATER.

Sale, use and distribution of this product in Nassau and Suffolk Counties in the State of New York is prohibited.

GROUP 5 15 27 HERBICIDES



**Acuron**  
Herbicide

A Herbicide for Control of Annual Grass and Broadleaf Weeds in Field Corn, Seed Corn, Silage Corn, Sweet Corn and Yellow Popcorn

#### Active Ingredients\*:

S-Metolachlor: (CAS No. 87392-12-9)	23.40%
Atrazine** (CAS No. 1912-24-9)	10.93%
Mesotrione: (CAS No. 104206-82-8)	2.60%
Bicyclopyrone: (CAS No. 352010-68-5)	0.65%

Other Ingredients:	62.42%
Total:	100.00%

\*Active ingredients per gallon: Atrazine 1.0 pound, Bicyclopyrone 0.06 pounds, Mesotrione 0.24 pounds and S-metolachlor 2.14 pounds.

\*\*Atrazine with a maximum of 0.45% related triazines.

See additional directions for use and Storage and Disposal in attached booklet.

#### AGRICULTURAL USE REQUIREMENTS

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR part 170. Refer to supplemental labeling under "Agricultural Use Requirements" in Directions for Use section for information about this standard.

EPA Reg. No. 100-1466

EPA Est. 100-LA-001

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Manufactured for:

Syngenta Crop Protection, LLC

P. O. Box 18300

Greensboro, North Carolina 27419-8300

SCP 1466A-L1A 1015

4059261

**2.5 gallons**  
Net Contents

## KEEP OUT OF REACH OF CHILDREN.

## CAUTION

### PRECAUTIONARY STATEMENTS

#### Hazards to Humans and Domestic Animals

##### CAUTION

Harmful if swallowed. Causes moderate eye injury. Avoid contact with eyes, skin, or clothing. Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals.

**FIRST AID** If swallowed: Call a Poison Control Center or doctor immediately for treatment advice. Have person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by a poison control center or doctor. Do not give anything to an unconscious person. If in eyes: Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Call a Poison Control Center or doctor for treatment advice. If on skin or clothing: Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a Poison Control Center or doctor for treatment advice. If inhaled: Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth, if possible. Call a Poison Control Center or doctor for further treatment advice. Have the product container or label with you when calling a poison control center or doctor, or going for treatment. **HOT LINE NUMBER:** For 24 Hour Medical Emergency Assistance (Human or Animal) or Chemical Emergency Assistance (Spill, Leak, Fire or Accident), Call 1-800-888-8372.

**Environmental Hazards:** Do not apply directly to water, to areas where surface water is present, or to intertidal areas below the mean high water mark. Do not contaminate water when disposing of equipment wash water or rinsate. This product contains atrazine, which has been shown to be toxic to aquatic invertebrates. Runoff and drift from treated areas may be hazardous to aquatic organisms in neighboring areas. Do not apply when weather conditions favor drift from treated areas.

**Ground Water Advisory:** Acuron contains the active ingredients atrazine, S-metolachlor, bicyclopyrone and mesotrione.

Atrazine can travel (seep or leach) through soil and can enter ground water which may be used as drinking water. Atrazine has been found in ground water. Users are advised not to apply atrazine to sand and loamy sand soils where the water table (ground water) is close to the surface and where these soils are very permeable, i.e., well-drained. Your local agricultural agencies can provide further information on the type of soil in your area and the location of ground water.

S-metolachlor has the potential to leach through soil into ground water under certain conditions as a result of agricultural use. Use of this product in areas where soils are permeable, particularly where the water table is shallow may result in ground water contamination.

Bicyclopyrone is known to leach through soil into ground water under certain conditions as a result of label use. This chemical may leach into ground water if used in areas where soils are permeable, particularly where the water table is shallow.

**Surface Water Advisory:** This product has a high potential for reaching surface water via runoff for several months or more after application. A level, well-maintained vegetative buffer strip between areas to which this product is applied and surface water features such as ponds, streams, and springs will reduce the potential loading of bicyclopyrone, atrazine, S-metolachlor and mesotrione from runoff water and sediment. Runoff of this product will be reduced by avoiding applications when rainfall or irrigation is expected to occur within 48 hours.

**Mixing/Loading Instructions:** Care must be taken when using this product to prevent back-siphoning into wells, spills, or improper disposal of excess pesticide, spray mixtures, or rinsates.

Check valves or anti-siphoning devices must be used on mixing equipment. This product must not be mixed/loaded or used within 50 ft of wells, including abandoned wells, drainage wells, and sink holes.\*

This product must not be mixed or loaded within 50 ft of perennial or intermittent streams and rivers, natural or impounded lakes and reservoirs. This product may not be applied within 66 ft of the points where field surface water runoff enters perennial or intermittent streams and rivers or within 200 ft from the edge of natural or impounded lakes and reservoirs. If this product is applied to highly erodible land, the 66 ft buffer or setback from runoff entry points must be planted to crop, or seeded with grass or other suitable crop.\*

\*For exceptions to these restrictions, see the Environmental Hazards section of the Precautionary Statements in attached booklet.

**Tile-Outletted Terraced Fields Containing Standpipes:** One of the following restrictions must be used in applying atrazine to tile-outletted terraced fields containing standpipes:

1. Do not apply this product within 66 ft of standpipes in tile-outletted terraced fields.
2. Apply this product to the entire tile-outletted terraced field and immediately incorporate it to a depth of 2-3 inches in the entire field.
3. Apply this product to the entire tile-outletted terraced field under a no-till practice only when a high crop residue management practice is practiced. High crop residue management is described as a crop management practice where little or no crop residue is removed from the field during and after crop harvest.

**Physical and Chemical Hazards:** Do not use or store near heat or open flame.

## STORAGE AND DISPOSAL

**Container Handling:** Non-refillable container. Do not reuse or refill this container. Offer for recycling if available. Triple rinse container (or equivalent) promptly after emptying. Triple rinse as follows: empty the remaining contents into application equipment of a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container 1/4 full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. Then offer for recycling if available or puncture and dispose of in a sanitary landfill, or by incineration, or, by other procedures allowed by state and local authorities. For minor spills, leaks, etc. follow all precautions on this label and clean up immediately. Take special care to avoid contamination of equipment and facilities during cleanup procedures; and disposal of wastes. In the event of a major spill, fire, or other emergency, call 1-800-888-8372, day or night. If the container is damaged and leaking or material has been spilled follow these procedures:

1. Cover spill with absorbent material.
2. Sweep into disposal container.
3. Wash area with detergent and water and follow with clean water rinse.
4. Do not allow to contaminate water supplies.
5. Dispose of according to instructions.

CONTAINER IS NOT SAFE FOR FOOD, FEED, OR DRINKING WATER.

**syngenta**®



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
WASHINGTON, DC 20460

OFFICE OF CHEMICAL SAFETY  
AND POLLUTION PREVENTION

October 7, 2015

Ms. Tamara Murphy  
Senior Regulatory Product Manager  
Syngenta Crop Protection, LLC  
P.O. Box 18300  
Greensboro, NC 27419

Subject: Label Amendment – Revisions to Ground and Surface Water advisory statements  
and Soil Organic Matter section  
Product Name: Acuron Herbicide  
EPA Registration Number: 100-1466  
Application Date: 09/10/2015  
Decision Number: 509305

Dear Ms. Murphy:

The amended label referred to above, submitted in connection with registration under the Federal Insecticide, Fungicide and Rodenticide Act, as amended, is acceptable. This approval does not affect any conditions that were previously imposed on this registration. You continue to be subject to existing conditions on your registration and any deadlines connected with them.

A stamped copy of your labeling is enclosed for your records. This labeling supersedes all previously accepted labeling. You must submit one copy of the final printed labeling before you release the product for shipment with the new labeling. In accordance with 40 CFR 152.130(c), you may distribute or sell this product under the previously approved labeling for 18 months from the date of this letter. After 18 months, you may only distribute or sell this product if it bears this new revised labeling or subsequently approved labeling. "To distribute or sell" is defined under FIFRA section 2(gg) and its implementing regulation at 40 CFR 152.3.

Should you wish to add/retain a reference to the company's website on your label, then please be aware that the website becomes labeling under the Federal Insecticide Fungicide and Rodenticide Act and is subject to review by the Agency. If the website is false or misleading, the product would be misbranded and unlawful to sell or distribute under FIFRA section 12(a)(1)(E). 40 CFR 156.10(a)(5) list examples of statements EPA may consider false or misleading. In addition, regardless of whether a website is referenced on your product's label, claims made on the website may not substantially differ from those claims approved through the registration process. Therefore, should the Agency find or if it is brought to our attention that a website contains false or misleading statements or claims substantially differing from the EPA approved registration, the website will be referred to the EPA's Office of Enforcement and Compliance.

Your release for shipment of the product constitutes acceptance of these conditions. If these conditions are not complied with, the registration will be subject to cancellation in accordance

Page 2 of 2  
EPA Reg. No. 100-1466  
Decision No. 509305

with FIFRA section 6. If you have any questions, please contact Lisa Pabel by phone at 703-347-0459, or via email at [pabel.lisa@epa.gov](mailto:pabel.lisa@epa.gov).

Sincerely,

A handwritten signature in black ink, appearing to read "Heather A. Garvie". The signature is fluid and cursive, with the first name "Heather" being more prominent.

Heather A. Garvie, Product Manager 24  
Fungicide Herbicide Branch (7505P)  
Office of Pesticide Programs

Enclosure

## Garvie, Heather

---

**From:** Garvie, Heather  
**Sent:** Monday, September 28, 2015 3:24 PM  
**To:** 'Murphy Tamara USGR'  
**Cc:** Pahel, Lisa  
**Subject:** RE: Fast Track amendment-EPA Reg No. 100-1466

Thanks Tammy!

**From:** Murphy Tamara USGR [mailto:tamara.murphy@syngenta.com]  
**Sent:** Monday, September 28, 2015 3:19 PM  
**To:** Garvie, Heather  
**Subject:** Fast Track amendment-EPA Reg No. 100-1466

Heather,

Syngenta agrees to the review of EPA Reg No. 100-1466 becoming a face track amendment. Please let me know if you have any questions.

*Regards,  
Tammy*

*Tamara Murphy /Senior Regulatory Product Manager  
Office: (336)632-2409 /Mobile: (336)906-4324 /Fax: (336)632-5688  
[tamara.murphy@syngenta.com](mailto:tamara.murphy@syngenta.com)*

*AI Responsibilities:* *Cereal Herbicides, BIR, Fluazifop, Smazine, Ametryn*

---

*This message may contain confidential information. If you are not the designated recipient, please notify the sender immediately, and delete the original and any copies. Any use of the message by you is prohibited.*

**Garvie, Heather**

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**From:** Garvie, Heather  
**Sent:** Monday, September 28, 2015 3:23 PM  
**To:** Thornton, Eleanor  
**Cc:** Pahel, Lisa  
**Subject:** switching notification to fast track

Hi Eleanor:

Per our conversation can you please switch the following from a notification to a fast track:

EPA reg# 100-1466

Decision # 509305

Thanks!  
Heather

Heather A. Garvie  
PM 24, Fungicide Herbicide Branch  
Registration Division  
Office of Chemical Safety and Pollution Prevention (7504P)  
U.S.EPA  
1200 Pennsylvania Ave. NW  
Washington, DC 20460  
phone: 703-308-0034  
[www.epa.gov](http://www.epa.gov)

Reg Number: 100-1466

Reg. Type: Product Regis. n - Section 3

Status: Conditionally Registered (24-Apr-20

Name: ACURON HERBICIDE

<View Registration Details>

(No New Receipts)				
S:	Submission Type	OPP Rec'd Date	Resubmission	Description

...Decisions...

Data Requirements

D: Pending; 509305; 100-1466;332;NOTIFICATION;

75-Day Letters

S: 974116 9/10/2015; Amendment; 100

D: Pending; 508868; 100-1466;392;MINOR FORMULA

D: Closed; 470872; 100-1466;R010.0;NEW AI;FOOD

S: 974116 Reg #: 100-1466

Submission Type: Amendment

Resubmission?: ☐ Yes ☒ No E-Sub #:

Decision #: 509305; 332;NOTIFICATION;

Submitter Company: SYNGENTA CROP PROTECTION, LLC

Application Date: 10-Sep-2015

OPP Received Date: 10-Sep-2015 Date Sent to Risk manager: 16-Sep-2015

Studies Included?: ☐ Yes ☒ No Fast Track?: ☒ Yes ☐ No

Form A Signed?: ☐ Yes ☐ No ☒ None Date:

Form B Signed?: ☐ Yes ☐ No ☒ None Date:

Reviewer: Pahel, Lisa

Received DT: Editable Due DT:

Submission Due DT: 10-Oct-2015 Response: 0, 10-Sep-2015

Priority Weight: Priority Points:

Comments: PRN 98-10 / revised section 3 label for the registered herbicide end use formulation Acuron

SEP 22 2015



S: 974116

Milestone Email: kimberly.clark@syngenta.com

Regulatory Type: Product Registration - Section 3

Resubmission: ☐ Yes ☒ No

Print Letter

Application Type: Amendment

Fee For Service: ☐ Yes ☒ No

Enter More Information

Company: 100 SYNGENTA CROP PROTECTION, LLC

V

Tracking

Risk Manager: Registration Division, Risk Management Team 24

Product #: 100-1466 Product Name: ACURON HERBICIDE

Override#:

Me Too Section3:

Me Too Product Name:

Application Date: 10-Sep-2015

OPP Rec'd Date: 10-Sep-2015

Front End Date: 11-Sep-2015

Risk Manager Send Date: 16-Sep-2015

FFS Due Date:

Negotiated Due Date:

OPP Target Date:

Fast Track: ☐

New Ingredient: ☐

Receipt Description:

Portal submission # 8374. Label notification.

Receipt Content	Des
Electronic Label	
<div>View/Edit</div>	

Form A: ☐

Signature Date:

Form B: ☐

Signature Date:

Notification



Syngenta Crop Protection, LLC  
P.O. Box 18300  
Greensboro, NC 27419-8300  
www.syngenta.com

**FEDERAL EXPRESS**

September 10, 2015

Document Processing Desk (NOTIF)  
Office of Pesticide Programs (7504P)  
U.S. Environmental Protection Agency  
Room S-4900, One Potomac Yard  
2777 South Crystal Drive  
Arlington, VA 22202

Attention: Ms. Shaja Joyner, PM 20  
Fungicide/Herbicide Branch, Registration Division

<b>SUBJECT: ACURON™ HERBICIDE EPA REG. NO. 100-1466 NOTIFICATION OF LABEL REVISIONS</b>
---

Dear Ms. Joyner:

Per PR-Notice 98-10, Syngenta Crop Protection, LLC, hereby, submits via NOTIFICATION a revised Section 3 label for the registered herbicide end use formulation Acuron (EPA Reg. No. 100-1466) for your approval. This notification includes minor revisions for the Ground and Surface Water Advisory statements and the Soil Organic Matter section of the label. Enclosed in support of this submission is the following:

- EPA Application for Pesticide Registration Form 8570-1
- Two copies (one highlighted) of the revised Section 3 label

**Fees for Services**

Since this submission is a notification for the subject product, no PRIA fee is necessary.

Thank you for your consideration of this request. If you have any questions, please do not hesitate to contact me at (336) 632-2409 or at my mobile phone (336) 906-4324.

Sincerely,

Tamara Murphy  
Senior Regulatory Product Manager  
[tamara.murphy.@syngenta.com](mailto:tamara.murphy.@syngenta.com)

Enclosures

**DOCUMENTUM**



**RESTRICTED USE PESTICIDE  
(GROUND AND SURFACE WATER CONCERNS)**

FOR RETAIL SALE TO AND USE ONLY BY CERTIFIED APPLICATORS OR PERSONS UNDER THEIR DIRECT SUPERVISION, AND ONLY FOR THOSE USES COVERED BY THE CERTIFIED APPLICATOR'S CERTIFICATION.

THIS PRODUCT IS A RESTRICTED-USE HERBICIDE DUE TO GROUND AND SURFACE WATER CONCERNS. USERS MUST READ AND FOLLOW ALL PRECAUTIONARY STATEMENTS AND INSTRUCTIONS FOR USE IN ORDER TO MINIMIZE POTENTIAL FOR ATRAZINE TO REACH GROUND AND SURFACE WATER.

**Sale, use and distribution of this product in Nassau and Suffolk Counties in the State of New York is prohibited.**

**GROUP 5 15 27 HERBICIDES**

**Acuron™ Herbicide**

A Herbicide for Control of Annual Grass and Broadleaf Weeds in Field Corn, Seed Corn, Silage Corn, Sweet Corn and Yellow Popcorn

**Active Ingredients\*:**

S-Metolachlor: (CAS No. 87392-12-9).....	23.40%
Atrazine**: (CAS No. 1912-24-9).....	10.93%
Mesotrione: (CAS No. 104206-82-8).....	2.60%
Bicyclopyrone: (CAS No. 352010-68-5) .....	0.65%
Other Ingredients:	62.42%
<b>Total:</b>	<b>100.00%</b>

\*Active ingredients per gallon: Atrazine 1.0 pound, Bicyclopyrone 0.06 pounds, Mesotrione 0.24 pounds and S-metolachlor 2.14 pounds.

\*\*Atrazine with a maximum of 0.45% related triazines.

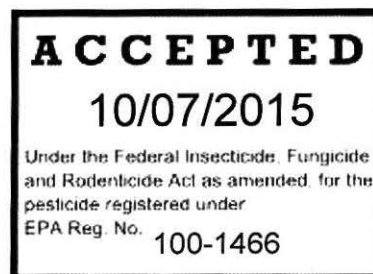
**KEEP OUT OF REACH OF CHILDREN.**

**CAUTION**

See additional precautionary statements and directions for use on label.

EPA Reg. No. 100-1466

2.5 gallons  
220 gallons  
\_\_\_\_\_gallons  
Net Contents



<b>FIRST AID</b>	
<b>If swallowed</b>	<ul style="list-style-type: none"> <li>• Call a Poison Control Center or doctor immediately for treatment advice.</li> <li>• Have person sip a glass of water if able to swallow.</li> <li>• Do not induce vomiting unless told to do so by a poison control center or doctor.</li> <li>• Do not give anything to an unconscious person.</li> </ul>
<b>If in eyes</b>	<ul style="list-style-type: none"> <li>• Hold eye open and rinse slowly and gently with water for 15-20 minutes.</li> <li>• Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye.</li> <li>• Call a Poison Control Center or doctor for treatment advice.</li> </ul>
<b>If on skin or clothing</b>	<ul style="list-style-type: none"> <li>• Take off contaminated clothing.</li> <li>• Rinse skin immediately with plenty of water for 15-20 minutes.</li> <li>• Call a Poison Control Center or doctor for treatment advice.</li> </ul>
<b>If inhaled</b>	<ul style="list-style-type: none"> <li>• Move person to fresh air.</li> <li>• If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth, if possible.</li> <li>• Call a Poison Control Center or doctor for further treatment advice.</li> </ul>
Have the product container or label with you when calling a poison control center or doctor, or going for treatment.	
<b>HOT LINE NUMBER</b> For 24 Hour Medical Emergency Assistance (Human or Animal) or Chemical Emergency Assistance (Spill, Leak, Fire or Accident), Call <b>1-800-888-8372</b>	

## **PRECAUTIONARY STATEMENTS**

### **Hazards to Humans and Domestic Animals**

#### **CAUTION**

Harmful if swallowed. Causes moderate eye injury. Avoid contact with eyes, skin, or clothing. Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals.

### **Personal Protective Equipment (PPE)**

Some materials that are chemical-resistant to this product are listed below.

**Mixers, Loaders, Applicators and other handlers must wear:**

- Coveralls over short-sleeved shirt and short pants
- Chemical-resistant gloves – Category A (e.g. barrier laminate, butyl rubber, nitrile rubber, neoprene rubber, natural rubber, polyethylene, polyvinyl chloride (PVC) or Viton®)
- Chemical-resistant footwear plus socks
- Chemical-resistant apron when mixing/loading, cleaning up spills, or cleaning equipment, or otherwise exposed to the concentrate
- Chemical-resistant headgear for overhead exposure

See engineering controls for additional requirements.

Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables exist, use detergent and hot water. Keep and wash PPE separately from other laundry. Discard clothing and other absorbent materials that have been drenched or heavily contaminated with this product's concentrate. Do not reuse them.

**Engineering Control Statements**

When applicators use closed systems or enclosed cabs in a manner that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides [40 CFR 170.240(d)(5)], the handler PPE requirements may be reduced or modified as specified in the WPS.

**User Safety Recommendations**

**Users should:**

- Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet.
- Remove clothing/PPE immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.
- Remove PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

**Environmental Hazards**

Do not apply directly to water, to areas where surface water is present, or to intertidal areas below the mean high water mark. Do not contaminate water when disposing of equipment wash water or rinsate. This product contains atrazine, which has been shown to be toxic to aquatic invertebrates. Runoff and drift from treated areas may be hazardous to aquatic organisms in neighboring areas. Do not apply when weather conditions favor drift from treated areas.



### **Ground Water Advisory**

Acuron contains the active ingredients atrazine, S-metolachlor, bicyclopyrone and mesotrione.

Atrazine can travel (seep or leach) through soil and can enter ground water which may be used as drinking water. Atrazine has been found in ground water. Users are advised not to apply atrazine to sand and loamy sand soils where the water table (ground water) is close to the surface and where these soils are very permeable, i.e., well-drained. Your local agricultural agencies can provide further information on the type of soil in your area and the location of ground water.

S-metolachlor has the potential to leach through soil into ground water under certain conditions as a result of agricultural use. Use of this product in areas where soils are permeable, particularly where the water table is shallow may result in ground water contamination.

Bicyclopyrone is known to leach through soil into ground water under certain conditions as a result of label use. This chemical may leach into ground water if used in areas where soils are permeable, particularly where the water table is shallow.

### **Surface Water Advisory**

This product has a high potential for reaching surface water via runoff for several months or more after application. A level, well-maintained vegetative buffer strip between areas to which this product is applied and surface water features such as ponds, streams, and springs will reduce the potential loading of bicyclopyrone, atrazine, S-metolachlor and mesotrione from runoff water and sediment. Runoff of this product will be reduced by avoiding applications when rainfall or irrigation is expected to occur within 48 hours.

### **Mixing/Loading Instructions**

Care must be taken when using this product to prevent back-siphoning into wells, spills, or improper disposal of excess pesticide, spray mixtures, or rinsates.

Check valves or antisiphoning devices must be used on mixing equipment.

This product must not be mixed/loaded or used within 50 ft of wells, including abandoned wells, drainage wells, and sink holes. Operations that involve mixing, loading, rinsing, or washing to this product into or from pesticide handling or application equipment or containers within 50 ft of any well are prohibited, unless conducted on an impervious pad constructed to withstand the weight of the heaviest load that may be positioned on or moved across the pad. Such a pad shall be designed and maintained to contain any product spills or equipment leaks, container or equipment rinse or wash

water, and rain water that may fall on the pad. Surface water shall not be allowed to either flow over or from the pad, which means the pad must be self-contained. The pad shall be sloped to facilitate material removal. An unroofed pad shall be of sufficient capacity to contain, at a minimum, 110% of the capacity of the largest pesticide container or application equipment on the pad. A pad that is covered by a roof of sufficient size to completely exclude precipitation from contact with the pad shall have a minimum containment capacity of 100% of the capacity of the largest pesticide container or application equipment on the pad. Containment capacities as described above shall be maintained at all times. The above specified minimum containment capacities do not apply to vehicles when delivering pesticide shipments to the mixing/loading site.

Additional State imposed requirements regarding well head setbacks and operational area containment must be observed.

This product must not be mixed or loaded within 50 ft of perennial or intermittent streams and rivers, natural or impounded lakes and reservoirs. This product may not be applied within 66 ft of the points where field surface water runoff enters perennial or intermittent streams and rivers or within 200 ft from the edge of natural or impounded lakes and reservoirs. If this product is applied to highly erodible land, the 66 ft buffer or setback from runoff entry points must be planted to crop, or seeded with grass or other suitable crop.

#### **Tile-Outletted Terraced Fields Containing Standpipes**

One of the following restrictions must be used in applying atrazine to tile-outletted terraced fields containing standpipes:

1. Do not apply this product within 66 ft of standpipes in tile-outletted terraced fields.
2. Apply this product to the entire tile-outletted terraced field and immediately incorporate it to a depth of 2-3 inches in the entire field.
3. Apply this product to the entire tile-outletted terraced field under a no-till practice only when a high crop residue management practice is practiced. High crop residue management is described as a crop management practice where little or no crop residue is removed from the field during and after crop harvest.

#### **Physical and Chemical Hazards**

Do not use or store near heat or open flame.

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**CONDITIONS OF SALE AND LIMITATION OF WARRANTY AND LIABILITY**

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**NOTICE:** Read the entire Directions for Use and Conditions of Sale and Limitation of Warranty and Liability before buying or using this product. If the terms are not acceptable, return the product at once, unopened, and the purchase price will be refunded.

The Directions for Use of this product must be followed carefully. It is impossible to eliminate all risks inherently associated with the use of this product. Crop injury, ineffectiveness or other unintended consequences may result because of such factors as manner of use or application, weather or crop conditions, presence of other materials or other influencing factors in the use of the product, which are beyond the control of SYNGENTA CROP PROTECTION, LLC or Seller. To the extent permitted by applicable law, Buyer and User agree to hold SYNGENTA and Seller harmless for any claims relating to such factors.

SYNGENTA warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes stated in the Directions for Use, subject to the inherent risks referred to above, when used in accordance with directions under normal use conditions. To the extent permitted by applicable law: (1) this warranty does not extend to the use of the product contrary to label instructions, or under conditions not reasonably foreseeable to or beyond the control of Seller or SYNGENTA, and, (2) Buyer and User assume the risk of any such use. To the extent permitted by applicable law, SYNGENTA MAKES NO WARRANTIES OF MERCHANTABILITY OR OF FITNESS FOR A PARTICULAR PURPOSE NOR ANY OTHER EXPRESS OR IMPLIED WARRANTY EXCEPT AS WARRANTED BY THIS LABEL.

To the extent permitted by applicable law, in no event shall SYNGENTA or Seller be liable for any incidental, consequential or special damages resulting from the use or handling of this product. **TO THE EXTENT PERMITTED BY APPLICABLE LAW, THE EXCLUSIVE REMEDY OF THE USER OR BUYER, AND THE EXCLUSIVE LIABILITY OF SYNGENTA AND SELLER FOR ANY AND ALL CLAIMS, LOSSES, INJURIES OR DAMAGES (INCLUDING CLAIMS BASED ON BREACH OF WARRANTY, CONTRACT, NEGLIGENCE, TORT, STRICT LIABILITY OR OTHERWISE) RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT, SHALL BE THE RETURN OF THE PURCHASE PRICE OF THE PRODUCT OR, AT THE ELECTION OF SYNGENTA OR SELLER, THE REPLACEMENT OF THE PRODUCT.**

SYNGENTA and Seller offer this product, and Buyer and User accept it, subject to the foregoing Conditions of Sale and Limitation of Warranty and Liability, which may not be modified except by written agreement signed by a duly authorized representative of SYNGENTA.

## DIRECTIONS FOR USE

It is a violation of Federal law to use this product in a manner inconsistent with its labeling.

ANY USE OF THIS PRODUCT IN AN AREA WHERE USE IS PROHIBITED IS A VIOLATION OF FEDERAL LAW. Before using this product, you must consult the Atrazine Watershed Information Center (AWIC) to determine whether the use of this product is prohibited in your watershed. AWIC can be accessed through [www.atrazine-watershed.info](http://www.atrazine-watershed.info) or 1-866-365-3014. If use of this product is prohibited in your watershed, you may return this product to your point of purchase or contact Syngenta Crop Protection, LLC for a refund.

Do not apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application. For any requirements specific to your State or Tribe, consult the agency responsible for pesticide regulation.

### AGRICULTURAL USE REQUIREMENTS

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR part 170. This Standard contains requirements for the protection of agricultural workers on farms, forests, nurseries, and greenhouses, and handlers of agricultural pesticides. It contains requirements for training, decontamination, notification, and emergency assistance. It also contains specific instructions and exceptions pertaining to the statements on this label about personal protective equipment (PPE), and restricted-entry interval. The requirements in this box only apply to uses of this product that are covered by the Worker Protection Standard.

**Do not enter or allow worker entry into treated areas during the restricted-entry interval (REI) of 24 hours.**

For early entry to treated areas that is permitted under the Worker Protection Standard and that involves contact with anything that has been treated, such as plants, soil and water, wear:

- Coveralls over short-sleeved shirt and short pants
- Chemical-resistant gloves – Category A (e.g. barrier laminate, butyl rubber, nitrile rubber, neoprene rubber, natural rubber, polyethylene, polyvinyl chloride (PVC) or Viton)
- Chemical resistant footwear plus socks
- Chemical-resistant headgear for overhead exposure.

**FAILURE TO FOLLOW THE DIRECTIONS FOR USE AND PRECAUTIONS ON THIS LABEL MAY RESULT IN POOR WEED CONTROL, CROP INJURY, OR ILLEGAL RESIDUES.**

**Sale, use and distribution of this product in Nassau and Suffolk Counties in the State of New York is prohibited.**

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## **PRODUCT INFORMATION**

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Acuron may be used preemergence and postemergence in the culture of field corn, seed corn, and silage corn. Acuron may also be used in the culture of sweet corn and yellow popcorn but the application must be made prior to crop emergence, (i.e., preemergence) or severe crop injury may occur.

Acuron is a combination of the herbicides: atrazine, bicyclopyrone, mesotrione and S-metolachlor plus the safener benoxacor. Acuron is recommended for management of the weed species listed in Tables 1 and 2.

### **ATRAZINE, BICYCLOPYRONE, MESOTRIONE AND S-METOLACHLOR HERBICIDE RATE LIMITATIONS**

Certain states may have established rate limitations within specific geographical areas for the use of atrazine. These more restrictive/protective requirements must be followed. Consult your state lead pesticide control agency for additional information. It is a violation of this label to deviate from state use regulations.

- When tank mixing or sequentially applying atrazine or products containing atrazine with Acuron to corn, do not exceed an application rate of 2.0 lb active ingredient of atrazine per acre for any single application and the total pounds of atrazine applied (lb ai per acre) must not exceed 2.5 lb active ingredient per acre per year.
- Maximum broadcast application rates for atrazine in corn must be as follows:
  - If no atrazine was applied prior to corn emergence, apply a maximum of 2.0 lb ai/A broadcast. If a postemergence treatment is required following an earlier herbicide application, the total atrazine applied may not exceed 2.5 lb ai/A per calendar year.
  - Apply a maximum of 2.0 lb ai/A as a single preemergence application on soils that are not highly erodible or on highly erodible soils (as defined by the Natural Resource Conservation Service) if at least 30% of the soil is covered with plant residues.
  - Apply a maximum of 1.6 lb ai/A as a single preemergence application on highly erodible (as defined by the Natural Resource Conservation Service) soils if <30% of the surface is covered with plant residues; or 2.0 lb ai/A if only applied postemergence.



**Note:** For purposes of calculating total atrazine active ingredient applied, Acuron contains 1.0 lb ai atrazine plus related per gallon.

Do not exceed label dosage rates, nor combined maximum annual rates for mesotrione (no more than 0.24 lb of mesotrione active ingredient must be applied per acre of corn per year), and S-metolachlor (the maximum annual use rate per year is 3.71 lb ai/A for corn). Do not apply more than 0.045 lb ai/A per year of bicyclopyrone for corn.

## **ACURON USE PRECAUTIONS**

- Applied according to directions and under normal growing conditions, Acuron will not harm the treated crop. During germination and early stages of growth, extended periods of unusually cold and wet or hot and dry weather, insect or plant disease attack, carryover pesticide residues, the use of certain soil applied systemic insecticides, improperly placed fertilizers or soil insecticides, may weaken crop seedlings. Acuron used under these conditions could result in crop injury.
- Where reference is made to weeds partially controlled, partial control can either mean erratic control from good to poor or consistent control at a level below that generally considered acceptable for commercial weed control.
- Dry weather following preemergence application of Acuron or a Acuron tank mixture may reduce effectiveness. If possible, cultivate if weeds develop.
- Applying Acuron postemergence to corn that has received an at-plant application of Counter® insecticide can result in severe corn injury. Temporary corn injury may occur if Acuron is applied to emerged corn where organophosphate insecticides other than Counter were applied at planting.
- Postemergence (emerged corn) applications of any organophosphate or carbamate insecticide within 7 days before or 7 days after a Acuron application may result in severe corn injury.

## **ACURON USE RESTRICTIONS**

- Grazing Restriction: To avoid possible illegal residues, do not graze or feed forage from treated areas for 45 days following application.
- Pre-Harvest Interval (PHI): Corn (for grain, seed, or silage) may be treated up to 12 inches tall. Do not harvest forage within 60 days after application.
- Do not apply more than 3.0 qt of Acuron per acre per growing year.
- Do not use aerial application to apply Acuron.



- Do not apply Acuron to sweet corn or yellow popcorn after the crop has emerged or severe crop injury may occur.
- Do not use Acuron on any crop other than corn (for grain, seed, or silage), sweet corn (preemergence applications only) or yellow popcorn (preemergence applications only).
- Do not use Acuron in the culture of white popcorn or ornamental (Indian) corn or injury may occur.
- Do not contaminate irrigation water used for crops or water used for domestic purposes.
- Thoroughly clean sprayer or other application device before using. Dispose of cleaning solution in a responsible manner. Do not use a sprayer or applicator contaminated with other materials, or crop damage or sprayer clogging of the application device may occur.
- Read and observe all precautions and limitations on this label and the label of each product used in tank mixtures.
- Do not make postemergence (emerged corn) applications of Acuron in a tank mix with any organophosphate or carbamate insecticide, or severe corn injury may occur.
- Do not apply under conditions which favor runoff or wind erosion of soil containing this product to non-target areas. To prevent off-site movement due to runoff or wind erosion:
  - Avoid treating powdery dry or light sand soils when conditions are favorable for wind erosion. Under these conditions, the soil surface should first be settled by rainfall or irrigation.
  - Do not apply to impervious substrates, such as paved or highly compacted surfaces.
  - Do not use tail water from the first flood or furrow irrigation of treated fields to treat nontarget crops, unless at least ½ inch of rainfall has occurred between application and the first irrigation.

## **RESISTANCE MANAGEMENT**

Acuron is a combination of atrazine, bicyclopyrone, mesotrione and S-metolachlor (Group 5 (atrazine), 15 (S-metolachlor), and 27 (bicyclopyrone and mesotrione) Herbicides).

Naturally occurring biotypes of certain weed species with resistance to triazines, ALS, PPO, Glycine (glyphosate) and HPPD herbicides are known to exist. If biotypes of weeds resistant to triazines, ALS, PPO and glycine inhibitors are present in the field, this herbicide should control them if they are listed in Tables 1 and 2.

To reduce the risk of weeds developing resistance to HPPD inhibitors, implement a program including both preemergence and/or postemergence herbicides that provide effective control of all weeds using multiple modes of action. This includes scouting fields before application to ensure the herbicide will be appropriate for the weeds present. Scout fields and eliminate weed escapes. If suspected weed resistance is observed against a particular weed species contact your Syngenta or retailer representative or call Syngenta Customer Service (1-800-334-9481). Lack of weed control is not necessarily an indicator of weed resistance.

Consider weed resistance management strategies that include two or more modes of action where a minimum of two modes of action are effective at controlling the target weed when either are applied alone.

Read and follow all label directions.

Acuron Herbicide contains four herbicide active ingredients and three modes of action and can be an effective component of a weed resistance management strategy.

## **INTEGRATED PEST (WEED) MANAGEMENT**

Acuron may be integrated into an overall pest management strategy. Practices known to reduce weed development (tillage, crop competition) and herbicide use (weed scouting, proper application timing, banding, and rotations) should be followed wherever possible. Consult local agricultural and weed authorities for additional Integrated Pest Management strategies established for your area.

## **SOIL ORGANIC MATTER**

Determine the organic matter of the soil on which the application is to be made prior to application. The use rate of Acuron is based on percent soil organic matter.

## **REDUCED AND NO-TILL SYSTEMS**

Acuron may be used in reduced and no-till systems. The highest levels of control will be obtained when applications are made as close to planting as possible. It is recommended that a burndown herbicide such as Gramoxone®, Touchdown® brands, Roundup® brands, or 2,4-D be tank mixed with Acuron in reduced or no-till systems if weeds are present at application and the corn has not yet emerged.

## WEEDS CONTROLLED

Acuron applied as directed in this label will control or suppress the weeds listed in Tables 1 and 2. Additional weeds may be controlled with tank mixes. See the **Acuron Tank Mix Combinations** section for recommended tank mix combinations. Always consult the tank mix product labels for specific rates and use directions.

**Table 1. Weeds Controlled or Partially Controlled by Preemergence Applications of Acuron**

Common Name	Scientific Name	Weed Rating <sup>1</sup>
<b>Broadleaf Weeds</b>		
Amaranth, Palmer	<i>Amaranthus palmeri</i>	C
Amaranth, Powell	<i>Amaranthus powellii</i>	C
Bedstraw, catchweed	<i>Galium aparine</i>	PC
Beggarweed, Florida	<i>Desmodium tortuosum</i>	C
Buckwheat, wild	<i>Polygonum convolvulus</i>	C
Buffalobur	<i>Solanum rostratum</i>	C
Carpetweed	<i>Mollugo verticillata</i>	C
Chickweed, common	<i>Stellaria media</i>	C
Cocklebur, common	<i>Xanthium strumarium</i>	C <sup>2</sup>
Deadnettle, purple	<i>Lamium purpureum</i>	C
Devil's-claw	<i>Proboscidea louisianica</i>	C
Galinsoga	<i>Galinsoga parviflora</i>	C
Henbit	<i>Lamium amplexicaule</i>	C
Horseweed (maretail)	<i>Conyza canadensis</i>	C
Jimsonweed	<i>Datura stramonium</i>	C
Kochia	<i>Kochia scoparia</i>	C
Lambsquarters, common	<i>Chenopodium album</i>	C
Mallow, Venice	<i>Hibiscus trionum</i>	C
Morningglory, ivyleaf/entireleaf	<i>Ipomoea hederacea</i>	C <sup>2</sup>
Mustard, wild	<i>Brassica kaber</i>	C
Nightshade, black	<i>Solanum nigrum</i>	C
Nightshade, eastern black	<i>Solanum ptycanthum</i>	C
Nightshade, hairy	<i>Solanum sarrachoides</i>	C
Pigweed, redroot	<i>Amaranthus retroflexus</i>	C

Common Name	Scientific Name	Weed Rating <sup>1</sup>
Pigweed, smooth	<i>Amaranthus hybridus</i>	C
Puncturevine	<i>Tribulus terrestris</i>	C
Purslane, common	<i>Portulaca oleracea</i>	C
Pusley, Florida	<i>Richardia scabra</i>	C
Radish, wild	<i>Raphanus raphanistrum</i>	C
Ragweed, common	<i>Ambrosia artemisiifolia</i>	C
Ragweed, giant	<i>Ambrosia trifida</i>	C
Sesbania, hemp	<i>Sesbania exaltata</i>	C
Shepherd's-purse	<i>Capsella bursa-pastoris</i>	C
Sicklepod	<i>Cassia obtusifolia</i>	C
Sida, prickly	<i>Sida spinosa</i>	PC
Smartweed, ladysthumb	<i>Polygonum persicaria</i>	C
Smartweed, Pennsylvania	<i>Polygonum pensylvanicum</i>	C
Sunflower, common	<i>Helianthus annus</i>	PC
Thistle, Russian	<i>Salsola tragus</i>	C
Velvetleaf	<i>Abutilon theophrasti</i>	C
Waterhemp, common	<i>Amaranthus rudis</i>	C
Waterhemp, tall	<i>Amaranthus tuberculatus</i>	C
<b>Grass Weeds</b>		
Barnyardgrass	<i>Echinochloa crus-galli</i>	C
Crabgrass	<i>Digitaria</i> spp.	C
Crowfootgrass	<i>Dactyloctenium aegyptium</i>	C
Cupgrass, prairie	<i>Eriochloa contracta</i>	C
Cupgrass, Southwestern	<i>Eriochloa gracilis</i>	C
Cupgrass, woolly	<i>Eriochloa villosa</i>	PC
Foxtail, giant	<i>Setaria faberi</i>	C
Foxtail, green	<i>Setaria viridis</i>	C
Foxtail, robust (purple, white)	<i>Setaria</i> spp.	C
Foxtail, yellow	<i>Setaria pumila</i>	C
Goosegrass	<i>Eleusine indica</i>	C
Johnsongrass, seedling	<i>Sorghum halepense</i>	PC
Millet, foxtail	<i>Setaria italica</i>	C
Millet, wild proso	<i>Panicum miliaceum</i>	PC

Common Name	Scientific Name	Weed Rating <sup>1</sup>
Panicum, Texas	<i>Panicum texanum</i>	PC
Rice, red	<i>Oryza sativa</i>	C
Sandbur, field	<i>Cenchrus incertus</i>	PC
Shattercane	<i>Sorghum bicolor</i>	PC
Signalgrass, broadleaf	<i>Brachiaria platyphylla</i>	C <sup>2</sup>
Signalgrass, narrowleaf	<i>Brachiaria piligera</i>	C
Sprangletop, red	<i>Leptochloa filiformis</i>	C
Starbur, bristly	<i>Acanthospermum hispidum</i>	C
Witchgrass	<i>Panicum capillare</i>	C
<b>Sedges</b>		
Nutsedge, Yellow	<i>Cyperus esculentus</i>	C

<sup>1</sup>C = Control, PC = Partial Control

<sup>2</sup>May require a tank-mix partner (e.g. atrazine) for control of heavy populations

Thoroughly till soil or make an application of a burndown herbicide to control emerging weeds. Plant crop immediately after tillage.

If a significant rainfall does not occur within 7 days after application, weed control may be decreased. If irrigation is available, apply ½ to 1 inch of water. If irrigation is not available, a uniform shallow cultivation is recommended as soon as weeds emerge.

**Table 2. Weeds Controlled or Partially Controlled by Early Postemergence Applications of Acuron**

Common Name	Scientific Name	Weed Rating <sup>1</sup>
<b>Broadleaf Weeds</b>		
Amaranth, Palmer	<i>Amaranthus palmeri</i>	C
Amaranth, Powell	<i>Amaranthus powellii</i>	C
Bedstraw, catchweed	<i>Galium aparine</i>	PC
Beggarweed, Florida	<i>Desmodium tortuosum</i>	C
Buckwheat, wild	<i>Polygonum convolvulus</i>	C
Buffalobur	<i>Solanum rostratum</i>	C
Carpetweed	<i>Mollugo verticillata</i>	C
Chickweed, common	<i>Stellaria media</i>	C
Cocklebur, common	<i>Xanthium strumarium</i>	C
Dandelion	<i>Taraxacum officinale</i>	PC
Deadnettle, purple	<i>Lamium purpureum</i>	C
Devil's-claw	<i>Proboscidea louisianica</i>	C
Galinsoga	<i>Galinsoga parviflora</i>	C
Hemp	<i>Cannabis sativa</i>	C
Henbit	<i>Lamium amplexicaule</i>	C
Horsenettle	<i>Solanum carolinense</i>	C
Horseweed (marestalk)	<i>Conyza canadensis</i>	C
Jimsonweed	<i>Datura stramonium</i>	C
Kochia	<i>Kochia scoparia</i>	C
Lambsquarters, common	<i>Chenopodium album</i>	C
Mallow, Venice	<i>Hibiscus trionum</i>	C
Marestail	<i>Hippuris vulgaris</i>	C
Morningglory, ivyleaf/entireleaf	<i>Ipomoea hederacea</i>	C
Mustard, wild	<i>Brassica kaber</i>	C
Nightshade, black	<i>Solanum nigrum</i>	C
Nightshade, eastern black	<i>Solanum ptycanthum</i>	C
Nightshade, hairy	<i>Solanum sarachoides</i>	C
Pigweed, redroot	<i>Amaranthus retroflexus</i>	C
Pigweed, smooth	<i>Amaranthus hybridus</i>	C
Pokeweed	<i>Phytolacca americana</i>	C



Common Name	Scientific Name	Weed Rating <sup>1</sup>
Potatoes, volunteer	<i>Solanum</i> spp.	C
Purslane, common	<i>Portulaca oleracea</i>	C
Pusley, Florida	<i>Richardia scabra</i>	C
Radish, wild	<i>Raphanus raphanistrum</i>	C
Ragweed, common	<i>Ambrosia artemisiifolia</i>	C
Ragweed, giant	<i>Ambrosia trifida</i>	C
Sesbania, hemp	<i>Sesbania exaltata</i>	C
Shepherd's-purse	<i>Capsella bursa-pastoris</i>	C
Sida, prickly	<i>Sida spinosa</i>	C
Smartweed, ladysthumb	<i>Polygonum persicaria</i>	C
Smartweed, Pennsylvania	<i>Polygonum pensylvanicum</i>	C
Sunflower, common	<i>Helianthus annuus</i>	C
Thistle, Canada	<i>Cirsium arvense</i>	C
Velvetleaf	<i>Abutilon theophrasti</i>	C
Waterhemp, common	<i>Amaranthus rudis</i>	C
Waterhemp, tall	<i>Amaranthus tuberculatus</i>	C
<b>Grass Weeds</b>		
Barnyardgrass	<i>Echinochloa crus-galli</i>	PC <sup>2</sup>
Crabgrass, large	<i>Digitaria sanguinalis</i>	C <sup>2</sup>
Foxtail, giant	<i>Setaria faberii</i>	PC <sup>2</sup>
Signalgrass, broadleaf	<i>Brachiaria platyphylla</i>	C <sup>2</sup>

<sup>1</sup>C = Control, PC = Partial Control

<sup>2</sup>Apply before the weed exceeds 2 inches in height

A tank mix of AAtrex® with Acuron can provide additional control of certain emerged annual grass weeds. Refer to the AAtrex label for weeds controlled and other restrictions.

## ROTATIONAL CROPS

When Acuron is applied as directed on this label, follow the crop rotation intervals in Table 3. If Acuron is tank mixed with other products, follow the most restrictive product's crop rotation interval.

Do not rotate to food or feed crops other than those listed on this label.

**Table 3. Time Interval Between Acuron Application and Replanting or Planting of Rotational Crop**

<b>Crop</b>	<b>Replant/Rotational Interval</b>
Field corn Seed corn Silage corn Sweet corn Yellow popcorn	Anytime <sup>1</sup>
Small grain cereals including wheat, barley and rye	4 Months
Cotton Dry beans <sup>2</sup> Peanuts Potato Rice Soybeans <sup>3,4</sup> Sorghum (all types)	10 Months <sup>5,6</sup>
All other rotational crops	18 Months

<sup>1</sup>Do not reapply Acuron.

<sup>2</sup>This rotational interval applies only to areas west of US highway 83 in the states of Colorado and Nebraska: If Acuron was applied to ground that was under center pivot irrigation and the soil pH is greater than 6.5, dry beans can be planted 10 months following application.

<sup>3</sup>Injury may occur to soybeans planted the year following application on soils having a calcareous surface layer if additional atrazine or atrazine-containing products are used.

<sup>4</sup>In eastern parts of the Dakotas, KS, western MN, and NE, do not rotate to soybeans for 18 months following application if the combined atrazine rate applied was more than 2.0 lb ai/A, or equivalent band application rate, or soybean injury may occur.

<sup>5</sup>If applied after June 1, rotating to crops other than corn (all types) may result in crop injury.

<sup>6</sup>In the High Plains and Intermountain areas of the West, where rainfall is sparse and erratic or where irrigation is required, use only when corn (all types) or sorghum is to follow corn, or a crop of untreated corn (all types) or sorghum is to precede other rotational crops.

## **APPLICATION PROCEDURES**

### **ADJUVANTS**

When an adjuvant is to be used with this product, the use of an adjuvant that meets the standards of the Chemical Producers and Distributors Association (CPDA) adjuvant certification program is recommended.

Where Acuron is applied after the corn has emerged, a non-ionic surfactant (NIS) at 0.25% v/v (1 qt/100 gal) may be used. The use of crop oil concentrate (COC) may

result in temporary crop injury. If used, add COC at a rate not to exceed 1% v/v (1 gal/100 gal) or not more than the equivalent of 1 qt/A. Do not use nitrogen based adjuvants (AMS or UAN) or methylated seed oil (MSO) with Acuron when applied alone to emerged corn, or when Acuron is applied as a postemergence tank mixture with other products, unless directed for a specific tank mix on this label or as part of a supplemental Acuron label. Any of these adjuvants may be used at a preemergence or preplant timing, i.e. where the corn crop has not yet emerged to increase burndown activity on existing weeds. Do not apply Acuron to emerged sweet corn or yellow popcorn or severe crop injury may occur.

For Acuron tank mixtures with Ignite® Herbicide applied to emerged field corn (LibertyLink® hybrids only), AMS may be added as directed on the Ignite label. However, AMS should be the only adjuvant added to this tank mixture, or severe crop injury may occur.

**Sprinkler Irrigation:** Do not apply Acuron by sprinkler irrigation. Use a sprinkler system only to incorporate Acuron after application. After Acuron has been applied, a sprinkler irrigation system set to deliver ½-1 inch of water may be used to incorporate the product. Using more than 1 inch of water could result in reduced performance. On sandy soil low in organic matter, use no more than ½ inch of water. Do not use flood irrigation to apply or incorporate Acuron.

## **CULTIVATION**

Should weeds develop; a shallow cultivation or rotary hoeing will generally result in improved weed control. If Acuron was incorporated, cultivate less than half the depth of incorporation.

If cultivation is necessary due to soil crusting, compaction, or escaped weeds, adjust equipment to run shallow and minimize soil movement. This will decrease the possibility of diluting or moving the herbicide from the weed control zone.

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## **SPRAY EQUIPMENT**

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### **Ground Application**

Spray nozzles should be uniformly spaced, the same size and type, and should provide accurate and uniform application. Use spray nozzles that provide medium to coarse droplet size to avoid drift yet provide good coverage. Ensure that all in-line strainer and nozzle screens in the sprayer are 50-mesh or coarser. Use a pump that can maintain the manufacturer's recommended pressure at the nozzles and provide proper agitation within the tank to keep the product dispersed. Lower pressures may be used with extended range or drift reduction nozzles as long as adequate coverage is maintained. Always ensure that agitation is maintained until spraying is completed, even if stopped for brief periods of time. If the agitation is stopped for more than 5 minutes, re-suspend the spray solution by running on full agitation prior to spraying.

**Preemergence:** Apply in a spray volume of 10-80 gal/A.

**Early Postemergence:** Good weed coverage is essential for optimum weed control. Boom height for broadcast over-the-top applications should be based on the height of the crop – at least 15 inches above the crop canopy, but only high enough to give uniform coverage. Apply in a spray volume of 10-30 gal/A. When weed foliage is dense, use a minimum spray volume of 20 gal/A. Flat fan nozzles of 80° or 110° are recommended for optimum postemergence coverage. Do not use floodjet nozzles or controlled droplet application equipment for postemergence applications. Nozzles may be angled forward 45° to enhance penetration of the crop and provide better coverage.

### **Aerial Prohibition**

Do not apply by air.

### **Spray Drift**

Do not apply when weather conditions may cause drift to nontarget areas. Drift may result in injury to adjacent crops and vegetation. To avoid spray drift, DO NOT apply when the wind speed is greater than 10 mph or during periods of temperature inversions.

**AVOIDING SPRAY DRIFT AT THE APPLICATION SITE IS THE RESPONSIBILITY OF THE APPLICATOR.**

The interaction of equipment and weather related factors determine the potential for spray drift. The applicator is responsible for considering these factors when making a decision.

### **Information on Droplet Size**

The most effective way to reduce spray drift potential is to apply large droplets. Use only nozzles producing medium to ultra coarse droplets. Do not use nozzles producing fine droplets.

### **Controlling Droplet Size**

- **Volume** - Use high flow rate nozzles to apply the highest practical spray volume. Nozzles with higher rated flows produce larger droplets.
- **Pressure** - Do not exceed the nozzle manufacturer's recommended pressures. For many nozzle types, lower pressure produces larger droplets. When higher flow rates are needed, use higher rate nozzles instead of increasing pressure.

- **Number of Nozzles** - Use the minimum number of nozzles that provide uniform coverage.

### **Application Height**

Applications must be made at the lowest height above the target area that still provides uniform coverage of the target. Making applications at the lowest yet effective height reduces exposure of droplets to wind.

### **Wind**

Drift potential is lowest when wind speeds are 10 mph or less. However, many factors, including droplet size, pressure, and equipment type determine drift potential at any given wind speed. **Note:** Local terrain can influence wind patterns.

Leave a 25-foot buffer downwind of the application to avoid drift to non-target areas. This buffer may be untreated corn rows or field border species maintained for this purpose.

### **Temperature Inversions**

Applications must not occur during a temperature inversion because drift potential is high. Temperature inversions restrict vertical air mixing, which causes small suspended droplets to remain in a concentrated cloud. This cloud can move in unpredictable directions due to the light variable winds common during inversions. Temperature inversions are characterized by increasing temperatures with altitude and are common on nights with limited cloud cover and light to no wind. They begin to form as the sun sets and often continue into the morning. Their presence can be indicated by ground fog; however, if fog is not present, inversions can also be identified by the movement of smoke from a ground source or an aircraft smoke generator. Smoke that layers and moves laterally in a concentrated cloud (under low wind conditions) indicates an inversion, while smoke that moves upward and rapidly dissipates, indicates good vertical air mixing.

### **Non-Target Areas**

Do not apply this pesticide when the product may drift to non-target areas (i.e. residential areas, bodies of water, known habitat for threatened or endangered species, non-target crops).

### **Cleaning Equipment After Application**

Special attention must be given to cleaning equipment before spraying a crop other than corn. Mix only as much spray solution as needed.

1. Flush tank, hoses, boom, and nozzles with clean water.

2. Prepare a cleaning solution of 1 gal of household ammonia per 25 gal of water. Many commercial spray tank cleaners may be used.
3. Use a pressure washer to clean the inside of the spray tank with this solution. Take care to wash all parts of the tank, including the inside top surface. If a pressure washer is not available, completely fill the sprayer with the cleaning solution to ensure contact of the cleaning solution with all internal surfaces of the tank and plumbing. Start agitation in the sprayer and thoroughly recirculate the cleaning solution for at least 15 minutes. Remove all visible deposits from the spraying system.
4. Flush hoses, spray lines, and nozzles for at least 1 minute with the cleaning solution.
5. Dispose of rinsate from steps 1-3 in an appropriate manner.
6. Repeat steps 2-5.
7. Remove nozzles, screens, and strainers and clean separately in the ammonia solution after completing the above procedures.
8. Rinse the complete spraying system with clean water.

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## MIXING PROCEDURES

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### CARRIER

**Preemergence Applications:** Either clean water or liquid fertilizers, excluding suspension fertilizers, may be used as carriers for preemergence applications. If fluid fertilizers are used, a compatibility test must be done. See Compatibility Test section for compatibility testing. Even if Acuron is physically compatible with a fluid fertilizer, constant agitation is necessary to maintain a uniform mixture during application.

**Postemergence Applications:** Use only clean water as the carrier when applying Acuron after corn emergence. Do not apply Acuron to emerged sweet corn or yellow popcorn.

### ADDING ACURON TO THE SPRAY TANK

The spray tank must be clean, thoroughly rinsed and decontaminated before adding either Acuron alone or with tank mix partners. If water is used as the carrier, use clean water.

**Acuron Applied Alone:** When Acuron is used alone, add the recommended amount of Acuron to the spray tank when the tank is half full of the carrier, then add the rest of the



water or fluid fertilizer. Provide sufficient agitation during mixing and application to maintain a uniform mixture.

**Acuron Applied in Tank Mixtures:** Refer to the sections on this label for recommended tank mixes. Always refer to labels of the tank mix partners for mixing directions and precautions. Do not exceed label dosage rates, nor combined maximum seasonal doses for atrazine, bicyclopyrone, mesotrione, or S-metolachlor. This product cannot be mixed with any product bearing a label prohibition against such mixing. If a tank mixture is used, a compatibility test must be done. See Compatibility Test section for details on the procedure for such a test.

If the tank-mix partner is compatible, fill the tank half full of the carrier. Start and continue agitation throughout mixing and spraying. All return lines to the spray tank must discharge below the liquid level. Prepare the components and add in the following order:

1. If a wettable powder or dry flowable formulation is used, make a slurry with water and add it slowly through the screen into the tank. Agitate during the procedure.
2. If a flowable formulation is used, add slowly through screen into the tank. Mixing and compatibility may be improved when a dry flowable is diluted with water before adding to the tank.
3. Add Acuron.
4. Add any other tank mix products next with emulsifiable concentrates added last.
5. Add an adjuvant last, if needed.
6. Complete filling the sprayer tank and continue agitation. Apply as soon as possible after spray mixture is prepared. Do not leave mixture in spray tank overnight without agitation or unattended.

#### **TANK MIX COMPATIBILITY TEST**

A compatibility test is recommended before tank mixing to ensure compatibility of Acuron with other pesticides. The following test assumes a spray volume of 25 gal/A. For other spray volumes, make appropriate changes in the ingredients.

**Note:** Nitrogen solutions or complete liquid fertilizers, excluding suspension fertilizers, may replace all or part of the water in the spray. Because liquid fertilizers vary, even within the same analysis, **always check compatibility with pesticide(s) before use.** Incompatibility of tank mixtures is more common with mixtures of fertilizer and pesticides.

### Test Procedure

1. Add 1.0 pt of carrier (fertilizer or water) to each of two 1 qt jars with tight lids.  
**Note:** Use the same source of water that will be used for the tank mix and conduct the test at the temperature the tank mix will be applied.
2. To one of the jars, add ¼ tsp or 1.2 milliliters of a compatibility agent approved for this use, such as Compex or Unite (¼ tsp is equivalent to 2.0 pt/100 gal spray). Shake or stir gently to mix.
3. To both jars, add the appropriate amount of pesticide(s) in their relative proportions based on recommended label rates. If more than one pesticide is used, add them separately with dry pesticides first, flowables next, and emulsifiable concentrates last. After each addition, shake or stir gently to thoroughly mix.
4. After adding all ingredients, put lids on and tighten, and invert each jar 10 times to mix. Let the mixtures stand 15-30 minutes and then look for separation, large flakes, precipitates, gels, heavy oily film on the jar, or other signs of incompatibility. Determine if the compatibility agent is needed in the spray mixture by comparing the two jars. If either mixture separates, but can be remixed readily, the mixture can be sprayed as long as good agitation is used. If the mixtures are incompatible, test the following methods of improving compatibility: (a) slurry the dry pesticide(s) in water before addition, or (b) add ½ the compatibility agent to the fertilizer or water and the other ½ to the emulsifiable concentrate or flowable pesticide before addition to the mixture. If incompatibility is still observed, do not use the mixture.
5. After compatibility testing is complete, dispose of any pesticide wastes in accordance with the **Storage and Disposal** section in this label.

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### CROP USE DIRECTIONS

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Acuron is to be used for preemergence use for control of most annual grass and broadleaf weeds in field corn, seed corn, silage corn, sweet corn and yellow popcorn. Acuron may also be applied early postemergence for the control of broadleaf weeds in field corn, seed corn and silage corn. Do not apply Acuron to emerged sweet corn or yellow popcorn or severe crop injury will occur.

See Table 1 and 2 for a list of weeds controlled.

**Acuron Use Rate:** Determine the soil organic matter content of the field on which Acuron is to be applied. On soils with greater than 10% organic matter, Acuron activity may be affected resulting in reduced or poor weed control.

Soil Organic Matter Content	Application rate <sup>1</sup>
<3%	2.5 qt/A
≥3%	3.0 qt/A

<sup>1</sup>Do not exceed 3.0 qt/A of Acuron per year.

## ACURON APPLIED ALONE

**Early Preplant:** Acuron may be applied up to 28 days prior to planting.

**Preemergence Surface:** Acuron may be applied to the soil surface as a broadcast or banded application.

**Early Postemergence:** Acuron may be applied after corn (for grain, seed, or silage) emergence. See the “**Adjuvants**” section of this label for specific recommendations. Do not apply early postemergence to corn in liquid fertilizer or severe crop injury may occur. Apply this treatment to small broadleaf weeds (less than 3 inches tall). Occasional corn leaf burn may result, but this will not affect later growth or corn yield. Do not apply Acuron to emerged sweet corn or yellow popcorn or severe crop injury may occur. Postemergence applications to corn must be made before crop reaches 12 inches in height.

This product will not provide consistent control of emerged grass weeds. For control of emerged grass weeds a grass herbicide tank mix may be required (see tank mix section of this label). Tank mixes of AAtrex can improve control of emerged annual grass and broadleaf weeds. Refer to the AAtrex label for weeds controlled and use restrictions.

If Bicep II Magnum®, Bicep Lite II Magnum®, AAtrex (atrazine), Dual Magnum®, or Dual II Magnum® alone or in tank mixtures have been applied early preplant, preplant surface, preplant incorporated, or preemergence, limit the Acuron early post application to not exceed a total of 2.5 lb of active ingredient of atrazine or 3.75 lb of S-metolachlor active per acre, or illegal residues may result.

**Split Application:** Acuron may be applied as a split application in corn (for grain, seed, or silage). For a split application program, apply ½ to ⅔ of the labeled rate of Acuron prior to crop emergence followed by a second Acuron application at ⅓ to ½ of the labeled rate as a post application after corn emergence. The total amount of Acuron applied in the split application program cannot exceed 2.5 qt/A in soils with <3% OM and cannot exceed 3.0 qt/A in soils with ≥3% OM. Refer to the **Early Postemergence** section above for instructions on postemergence applications.

## **ACURON TANK MIX COMBINATIONS**

### **Use of Spray Adjuvants with Tank Mixtures**

When Acuron is used as a preemergence herbicide, and before weeds have emerged, spray adjuvants have little or no influence on performance. However, in burndown situations where the weeds have emerged and the corn has not, an adjuvant may be used with Acuron applied alone or when applied in tank mixture with a burndown herbicide as allowed on the individual product labels. Use only those adjuvants approved for agricultural crop use. See the “**Adjuvants**” section under “**Application Procedures**” for further instructions.

### **Burndown Combinations for Reduced Tillage Situations**

In reduced or no-till corn and before the crop has emerged, Acuron tank mixes with Gramoxone brands or Touchdown brands (or other glyphosate products such as Roundup brands) will burndown emerged weeds. For best results, tank mixes of Acuron plus Gramoxone should be applied to emerged weeds that are 1-6 inches in height. Consult the Gramoxone, Touchdown brand, or glyphosate product label for further information on weeds controlled and application timings.

### **Preemergence Tank Mixtures Applied Before Corn Emergence**

The tank mix partners listed in Table 4 may be used in either conventional, reduced, or no-till systems and be applied by the same methods and at the same timings as Acuron unless otherwise specified in the tank mix product label. Follow all tank mix product labels for use rates and restrictions. Perform a compatibility test prior to spraying the tank mix application. Tank mixtures with 2,4-D are allowed, but should only be done with extreme care with regard to ensuring compatibility before mixing a load. 2,4-D products, and even batches, vary greatly with regard to compatibility and should be checked each time a water or carrier source, water or carrier temperature, product source, or tank mixture recipe is changed.

**Table 4: Tank Mixtures for Preemergence Applications with Acuron**

<b>Tank Mix</b>	<b>Rate (Max)</b>	<b>Objective</b>
AAtrex or other solo Atrazine products	0.5-1.25 lb ai/A	Improved broadleaf and grass weed control
Princep®	0.5-1.3 lb ai/A	Improved broadleaf and grass weed control
Gramoxone brands	See product label	Burndown existing weeds
Touchdown brands	See product label	Burndown existing weeds
Roundup or other glyphosate brands	See product label	Burndown existing weeds
Warrior brands	See product label	To control insects, such as cutworm

### **Early Postemergence Tank Mixtures Applied After Corn Emergence**

The tank mix partners listed in Table 5 may be used in conventional, reduced or no-till systems and can be applied by the same methods and at the same timings as Acuron unless otherwise specified in the tank mix product label. Follow all tank mix product labels for use rates and restrictions. Perform a compatibility test prior to spraying the tank mix application. Do not apply Acuron tank mixtures to emerged sweet corn or yellow popcorn.

**Table 5: Tank Mixtures for Early Postemergence Weed Control with Acuron**

<b>Tank Mix<sup>1</sup></b>	<b>Rate (Max)</b>	<b>Objective</b>
AAtrex or other solo Atrazine products	0.5-1.25 lb ai/A	Improved broadleaf and annual grass weed control
Warrior brands	3.84 fl oz/A	To control insects, such as cutworm
Accent® Q	As per product label	Emerged grass control
Basis® brands	As per product label	Emerged grass control
Steadfast® Q	As per product label	Emerged grass control

<sup>1</sup>Consult the "Adjuvant" section of this label for directions when applying Acuron alone or in tank mixture to emerged corn (for grain, seed, or silage).

### **Acuron Programs with Glyphosate in Glyphosate Tolerant Corn**

Acuron may be applied early postemergence at a rate of 1.5-2 qt/A in tank mixture with a solo glyphosate product (e.g. Touchdown or Roundup brands) that is registered for use over-the-top in glyphosate tolerant field corn (e.g. Roundup Ready or Agrisure™ GT Corn). To minimize weed competition with the crop, target the application of this mixture to weeds in the 1 to 2 inch range. Do not apply this mixture to corn that is greater than 12 inches tall. If the glyphosate product has a built-in adjuvant system (i.e. the product label does not ask for additional adjuvant), only spray-grade ammonium sulfate (AMS) at 8.5 lb/100 gal should be added to this mixture. If the glyphosate

product label calls for an adjuvant in addition to AMS, add a non-ionic surfactant (NIS) at 0.25% v/v and AMS to this spray mixture. Do not add urea ammonium nitrate (UAN), crop oil concentrate (COC), or methylated seed oil (MSO) type adjuvants to these mixtures, or crop injury may occur. Follow all directions for use and restrictions on the glyphosate product label.

Alternatively, Acuron may be applied preemergence at a rate down to 2 qt/A as part of a two-pass weed control system when followed by a postemergence application of a glyphosate based product in glyphosate tolerant corn (e.g. Roundup Ready or Agrisure GT Corn). When used in this way, Acuron will provide reduced competition of the weeds listed in Table 1 for a period of 30 or more days, thus improving the timing flexibility and effectiveness of the glyphosate based product application. Follow all directions for use and restrictions on the glyphosate product label.

Acuron may be applied preemergence at 1.25-1.5 qt/A as part of a two-pass weed control system when followed by Halex® GT postemergence in glyphosate tolerant corn (e.g. Roundup Ready or Agrisure GT Corn). Follow all directions for use and restrictions on each product label.

### **Acuron Programs for LibertyLink Corn**

Acuron may be applied early postemergence at a rate of 1.5-2 qt/A in tank mixture with Ignite and applied over-the-top in field corn designated as LibertyLink. To minimize weed competition with the crop, target the application of this mixture to weeds in the 1 to 2 inch range. Do not apply this mixture to corn that is greater than 12 inches tall. Ammonium sulfate (AMS) may be added as a spray adjuvant as directed on the Ignite label. However, AMS should be the only adjuvant added to this tank mixture. Do not add urea ammonium nitrate (UAN), crop oil concentrate (COC), non-ionic surfactants (NIS), or methylated seed oil (MSO) type adjuvants to these mixtures, or crop injury may occur. Follow all directions for use and restrictions on the Ignite product label.

Alternatively, Acuron may be applied preemergence at a rate down to 2 qt/A as part of a two-pass weed control system when followed by a postemergence application of Ignite in field corn designated as LibertyLink. When used in this way, Acuron will provide reduced competition of the weeds listed in Table 1 for a period of 30 or more days, thus improving the timing flexibility and effectiveness of the Ignite application. Follow all directions for use and restrictions on the Ignite product label.

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## **STORAGE AND DISPOSAL**

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Do not contaminate water, food, or feed by storage or disposal.

### **Pesticide Storage**

Keep container tightly closed when not in use. Do not store near seeds, fertilizers, or foodstuffs. Keep away from heat and flame. Ground water contamination may be



reduced by diking and flooring of permanent liquid bulk storage sites with an impermeable material.

### **Pesticide Disposal**

Open dumping is prohibited. Waste resulting from the use of this product may be disposed of on site or at an approved waste disposal facility. Rinse spray equipment. Pesticide wastes are acutely hazardous. Improper disposal of excess pesticide, spray mixture, or rinsate is a violation of Federal law. If these wastes cannot be disposed of as described above, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste Representative at the nearest EPA Regional Office for guidance.

### **Container Handling [equal to or less than 5 gallons]**

Non-refillable container. Do not reuse or refill this container. Offer for recycling if available. Triple rinse container (or equivalent) promptly after emptying. Triple rinse as follows: empty the remaining contents into application equipment of a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container  $\frac{1}{4}$  full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. Then offer for recycling if available or puncture and dispose of in a sanitary landfill, or by incineration, or, by other procedures allowed by state and local authorities.

For minor spills, leaks, etc. follow all precautions on this label and clean up immediately. Take special care to avoid contamination of equipment and facilities during cleanup procedures and disposal of wastes. In the event of a major spill, fire, or other emergency, call 1-800-888-8372, day or night. If the container is damaged and leaking or material has been spilled follow these procedures:

1. Cover spill with absorbent material.
2. Sweep into disposal container.
3. Wash area with detergent and water and follow with clean water rinse.
4. Do not allow to contaminate water supplies.
5. Dispose of according to instructions.

### **Container Handling [greater than 5 gallons]**

Refillable container. Refill this container with pesticide only. Do not reuse this container for any other purpose. Cleaning the container before final disposal is the responsibility of the person disposing of the container. Cleaning before refilling is the responsibility of the refiller. To clean container before final disposal, empty the remaining contents from this container into application equipment or mix tank. Fill the container about 10 percent full with water. Agitate vigorously or recirculate water with the pump for 2 minutes. Pour or pump rinsate into application equipment or rinsate collection system. Repeat this rinsing procedure two more times. Then offer for recycling if available or puncture

and dispose of in a sanitary landfill, or by incineration, or, by other procedures allowed by state and local authorities.

For minor spills, leaks, etc. follow all precautions on this label and clean up immediately. Take special care to avoid contamination of equipment and facilities during cleanup procedures and disposal of wastes. In the event of a major spill, fire, or other emergency, call 1-800-8372, day or night. If the container is damaged and leaking or material has been spilled follow these procedures:

1. Cover spill with absorbent material.
2. Sweep into disposal container.
3. Wash area with detergent and water and follow with clean water rinse.
4. Do not allow to contaminate water supplies.
5. Dispose of according to instructions.

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**CONTAINER IS NOT SAFE FOR FOOD, FEED, OR DRINKING WATER!**

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AAtrex®, Acuron™, Agrisure® GT, Bicep II Magnum®, Bicep Lite II Magnum®, Callisto®, Callisto Plant Technology®, Concep®, Dual II Magnum®, Dual Magnum®, Gramoxone®, Halex® GT, Princep®, Touchdown®, Warrior®, and the SYNGENTA Logo are Trademarks of a Syngenta Group Company.

Accent®, Basis®, Steadfast®, and Viton® are trademarks of E. I. du Pont de Nemours and Company

Counter® is a trademark of BASF Corporation

Ignite® and LibertyLink® are trademarks of Bayer CropScience

Roundup® and Roundup Ready® are trademarks of Monsanto Company

©201X Syngenta

For non-emergency information (e.g., current product information), call  
Syngenta Crop Protection at 1-800-334-9481

Manufactured for:  
Syngenta Crop Protection, LLC  
P. O. Box 18300  
Greensboro, North Carolina 27419-8300

Acuron Herbicide 1466 MAS 0415 AMEND 0915 – bb – 9-10-15  
000100-1466.20150910.ACURONHERBICIDE.AMEND.0915.pdf

# Material Sent for Data Extraction

Reg. # 100-1466

Description: Accepted MFA-PEN-98-10

☒ Material(s) Sent to Data Extraction Contractors:

☐ New Stamped Label Dated \_\_\_\_\_

☒ Notification Dated 8.21.15

☒ New CSF(s) Dated 6.23.15 - alt # 1467/3, 1511/3

☐ Other: \_\_\_\_\_

☒ Decision #: 508868

☐ Other Action/Comments: \_\_\_\_\_  
\_\_\_\_\_

File this coversheet and attached materials in the jacket. It must be well organized and clipped together, NOT STAPLED. Then give the jacket with the coversheet and materials to staff in the Information Services Center (ISC) (Room S-4900). If a jacket is full or only available as an image, please file materials in a new jacket and bring it down to the (ISC). For further information please call 703-605-0716.

Reviewer: Alganesh Debesai

Phone: 308-8353 Division: RD

Date: 10.5.15



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
WASHINGTON, D.C. 20460

OFFICE OF CHEMICAL SAFETY  
AND POLLUTION PREVENTION

October 5, 2015

Tamara Murphy  
Regulatory Product Manager  
Syngenta Crop Protection, LLC.  
P.O. Box 18300  
Greensboro, NC 27419

Subject: Minor Formulation Amendment per PRN 98-10  
Product Name: Acuron Herbicide  
EPA Registration Number: 100-1466  
Application Date: 8/21/2015

Dear Ms. Murphy:

The Agency is in receipt of your Application for Pesticide Notification under Pesticide Registration Notice (PRN) 98-10 dated 8/21/2015 for **EPA Registration 100-1466**. The Registration Division (RD) has conducted a review of two Confidential Statements of Formula (CSF) submitted with this request for its applicability under PRN 98-10 and finds that the change(s) requested falls within the scope of PRN 98-10. Therefore, Alternate No. (1467/3 and 1511/3) CSFs dated 6/23/2015 **are acceptable**. A copy of each CSF has been added to the registration file for the subject product.

Please note that the record for this product currently contains the following CSFs:

- Basic CSF No. 1466/3 dated 9/6/2012
- Alternate CSF No. 1467/2 dated 9/6/2012
- Alternate CSF No. 1511/2 dated 9/6/2012
- Alternate CSF No. 1467/3 dated 6/23/2015
- Alternate CSF No. 1511/3 dated 6/23/2015

Any CSFs other than those listed above are superseded/no longer valid. If you have any questions, please contact me via telephone at 703-308-8353 or e-mail ([debesai.alganesh@epa.gov](mailto:debesai.alganesh@epa.gov)).

Sincerely,

*Alganesh Debesai*

Alganesh Debesai.  
Chemistry, Inerts and Toxicology Assessment Branch  
Registration Division (7505P)  
Office of Chemical Safety and Pollution Prevention

Please read instructions on reverse before completing form.

<b>United States</b> <b>Environmental Protection Agency</b> Washington, DC 20460		<input type="checkbox"/> Registration <input type="checkbox"/> Amendment <input checked="" type="checkbox"/> Other	OPP Identifier Number <b>NOTIFICATION</b>
<b>Application for Pesticide - Section I</b>			
1. Company/Product Number <b>100-1466</b>		2. EPA Product Manager <b>Ms. Heather Garvie</b>	
4. Company/Product (Name) <b>Acuron Herbicide</b>		3. Proposed Classification <input checked="" type="checkbox"/> None <input type="checkbox"/> Restricted	
5. Name and Address of Applicant (Include ZIP Code) Syngenta Crop Protection, LLC P. O. Box 18300 Greensboro, NC 27419  <input type="checkbox"/> Check if this is a new address		6. <b>Expedited Review.</b> In accordance with FIFRA Section 3(c)(3) (b)(i), my product is similar or identical in composition and labeling to:  EPA Reg. No. _____ Product Name _____	
<b>Section - II</b>			
<input type="checkbox"/> Amendment - Explain below. <input type="checkbox"/> Final printed labels in response to Agency letter dated _____ <input type="checkbox"/> Resubmission in response to Agency letter dated _____ <input type="checkbox"/> "Me Too" Application. <input checked="" type="checkbox"/> Notification - Explain below. <input type="checkbox"/> Other - Explain below.			
<b>Explanation:</b> Use additional page(s) if necessary. (For Section I and Section II.) Change date below. Per PR Notice 98-10, Syngenta Crop Protection, LLC herein respectfully submits via NOTIFICATION revised Confidential Statements of Formula to address the addition of suppliers for some of the inerts. Alternate CSFs: CSF No. 1457-3 and Alternate CSF No. 1511-3, dated 6-23-2015. This notification is consistent with the provisions of PR Notice 98-10 and EPA regulations at 40 CFR 152.46, and no other changes have been made to the labeling or the confidential statement of formula of this product. I understand that it is a violation of 18 U.S.C. Sec. 1001 to willfully make any false statement to EPA. I further understand that if this notification is not consistent with the terms of PR Notice 98-10 and 40 CFR 152.46, this product may be in violation of FIFRA and I may be subject to enforcement action and penalties under sections 12 and 14 of FIFRA.			
<b>Section - III</b>			
1. <b>Material This Product Will Be Packaged In:</b>			
Child-Resistant Packaging <input type="checkbox"/> Yes* <input type="checkbox"/> No  <i>*Certification must be submitted</i>	Unit Packaging <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No  If "Yes"      No. per Unit Packaging wgt.      Container	Water Soluble Packaging <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No  If "Yes"      No. per Unit Packaging wgt.      container	2. <b>Type of Container</b> <input type="checkbox"/> Metal <input checked="" type="checkbox"/> Plastic <input type="checkbox"/> Glass <input type="checkbox"/> Paper <input type="checkbox"/> Other (Specify) _____
3. Location of Net Contents Information <input checked="" type="checkbox"/> Label <input type="checkbox"/> Container		4. Size(s) Retail Container  5. Location of Label Directions <input checked="" type="checkbox"/> On Label <input type="checkbox"/> On Labeling accompanying product	
6. Manner in Which Label is Affixed to Product <input type="checkbox"/> Lithograph <input checked="" type="checkbox"/> Other <u>Pressure Sensitive</u> <input type="checkbox"/> Paper glued <input type="checkbox"/> Stenciled			
<b>Section - IV</b>			
1. <b>Contact Point</b> (Complete items directly below for identification of individual to be contacted, if necessary, to process this application.)			
Name <b>Tamara Murphy</b>		Title <b>Sr. Regulatory Product Manager</b>	
		Telephone No. (Include Area Code) <b>336-632-2409</b>	
<b>Certification</b> I certify that the statements I have made on this form and all attachments thereto are true, accurate and complete. I acknowledge that any knowingly false or misleading statement may be punishable by fine or imprisonment or both under applicable law.			6. Date Application Received (Stamped)
2. Signature 		3. Title <b>Sr. Regulatory Product Manager</b> <b>tamara.murphy@syngenta.com</b>	
4. Typed Name <b>Tamara Murphy</b>		5. Date <b>8-21-2015</b>	

EPA Form 8570-1 (Rev. 8-94) Previous editions are obsolete

e-Submission



Tamara Murphy  
Sr.Regulatory Product Manager  
Regulatory Affairs  
Herbicides  
(336) 632-2409 (phone)  
(336) 632-5688 (fax)  
[tamara.murphy@syngenta.com](mailto:tamara.murphy@syngenta.com)

Syngenta Crop Protection, LLC  
P.O. Box 18300  
Greensboro, NC 27419-8300  
[www.syngenta.com](http://www.syngenta.com)

Due 10/8/15 MFA

FeJEx

August 21<sup>st</sup>, 2015

Document Processing Desk (NOTIF)  
Office of Pesticide Programs (7508P)  
U.S. Environmental Protection Agency  
Room S-4900, One Potomac Yard  
2777 South Crystal Drive  
Arlington, VA 22202-4501

**Attn:** Ms. Heather Garvie-PM Team 24  
Registration Division  
Fungicide/Herbicide Branch

**SUBJECT:** ACURON HERBICIDE : EPA FILE SYMBOL NO. 100-1466  
NOTIFICATION OF REVISED ALTERNATE CONFIDENTIAL  
STATEMENT OF FORMULA (CSF 1467/3, 1511/3)

Dear Ms. Garvie,

Per PR Notice 98-10, Syngenta Crop Protection, LLC herein respectfully submits via NOTIFICATION revised Confidential Statements of Formula to address the addition of suppliers for some of the inerts.

The following documents are submitted in support of this response:

- Confidential Statements of Formula:  
*Alternate CSF No. 1467/3; and*  
*Alternate CSF No. 1511/3 both dated 6/23/2015*
- Completed EPA Application for Pesticide Registration Form 8570-1

**Fees for Service**

Since this is to satisfy a notification to support the subject product for this data submission, no PRIA fee is necessary.

If you have any questions regarding this submission, please contact me at 336-632-2409, 336-906-4324 (mobile), fax: 336-632-5688, or email [tamara.murphy@syngenta.com](mailto:tamara.murphy@syngenta.com).

Thank you for your assistance with this request.

Sincerely,

Tamara Murphy  
Senior Regulatory Product Manager, Herbicides

Enclosures on CD

e-Submission



# PROCESSING REQUEST

Reg #: 100-1466

Decision #: 470872

Description: new product

## Material Available Electronically (see PPLS):

☐ Electronic Label/Letter Dated:

☐ Other:

## Material Sent (see jacket):

☐ Stamped Label/Letter Dated:

☐ Notification Dated:

☒ New CSF(s) Dated: 9-6-12 basic and alt. 1 & 2

☐ Other:

File this coversheet and attached materials in the jacket. It must be well organized and clipped together, NOT STAPLED. Then give the jacket with the coversheet and materials to staff in the Information Services Center (ISC) (Room S-4900). If a jacket is full or only available as an image, please file materials in a new jacket and bring it down to the (ISC). For further information please call 703-605-0716.

Reviewer: Erik Kraft

Division: RD

Phone: 703-308-9358

Date: 4-27-15



U.S. ENVIRONMENTAL PROTECTION AGENCY

Office of Pesticide Programs  
Registration Division (7505P)  
1200 Pennsylvania Ave., N.W.  
Washington, D.C. 20460

EPA Reg. Number:

100-1466

Date of Issuance:

04/24/2015

NOTICE OF PESTICIDE:

☒ Registration  
☐ Reregistration  
(under FIFRA, as amended)

Term of Issuance:

Conditional

Name of Pesticide Product:

Acuron™ Herbicide

Name and Address of Registrant (include ZIP Code):

Syngenta Crop Protection, LLC  
P.O. Box 18300  
Greensboro, NC 27419

**Note:** Changes in labeling differing in substance from that accepted in connection with this registration must be submitted to and accepted by the Registration Division prior to use of the label in commerce. In any correspondence on this product always refer to the above EPA registration number.

On the basis of information furnished by the registrant, the above named pesticide is hereby registered under the Federal Insecticide, Fungicide and Rodenticide Act.

Registration is in no way to be construed as an endorsement or recommendation of this product by the Agency. In order to protect health and the environment, the Administrator, on his motion, may at any time suspend or cancel the registration of a pesticide in accordance with the Act. The acceptance of any name in connection with the registration of a product under this Act is not to be construed as giving the registrant a right to exclusive use of the name or to its use if it has been covered by others.

This product is conditionally registered in accordance with FIFRA section 3(c)(7)(C) provided that you:

1. Submit and/or cite all data required for registration/reregistration/registration review of your product when the Agency requires all registrants of similar products to submit such data.

Signature of Approving Official:

Rachel Holloman, Branch Chief  
Fungicide and Herbicide Branch, Registration Division (7505P)

Date:

04/24/2015

2. Make the following label changes before you release the product for shipment:
  - Revise the EPA Registration Number to read, "EPA Reg. No. 100-1466."
3. You are required to submit to the Agency: acute and chronic studies of bicyclopyrone on honey bee larval development and survival, and chronic studies of adult bees. The deadline for you to submit these required data to the Agency is 4/21/18. Your failure to provide these data in a timely or adequate manner may result in initiation of a cancellation action against your registration.
4. A. Annual reports: Syngenta will provide an annual report to EPA no later than March 31 of each year following Acuron's first full launch year (the first full launch year currently is anticipated to be 2016 and, if so, the first report would be made in March of 2017). The report will include data on the total application of specific herbicide products to corn grown in the U.S. in the preceding year.

B. 2018 Interim Milestone: In the annual report on the 2018 growing season (provided in March of 2019) Syngenta will demonstrate a 1.6 million pound reduction of atrazine applied per year on base acres treated with the specific Syngenta products compared to the baseline (referred to as "the interim milestone"). If this interim milestone is not reached, no later than April 15, 2019, Syngenta will submit for EPA approval revisions to the label for Acuron which include a reduction or prohibition of the use of additional atrazine in tank-mixing or sequential use (or other measures agreed upon with EPA prior to that date) that would be consistent with achieving the 2020 atrazine reduction milestone. Provided that EPA approves the label revisions by May 31, 2019, this revised label must be on all Acuron product (100-1466) that Syngenta releases for shipment as of September 30, 2019. If Syngenta submits label revisions by April 15, 2019, but EPA has not approved the label revisions by May 31, EPA and Syngenta will discuss and establish a revised schedule for making the revisions.

C. 2020 Milestone: In the annual report on the 2020 growing season (provided in March of 2021), Syngenta will demonstrate an approximately 3.6 million pound reduction of atrazine. If the 2018 interim milestone is reached but the 2020 milestone is not reached, no later than April 15, 2021, Syngenta will submit for EPA approval revisions to the label for Acuron which include a reduction or prohibition of the use of additional atrazine in tank-mixing or sequential use (or other measures agreed upon with EPA prior to that date) that would be consistent with achieving the 2020 atrazine reduction milestone in the 2021 growing season. (Meeting the 2020 atrazine reduction milestone in either 2020 or 2021 is referred to as "the milestone"). Provided that Syngenta submits label revisions by April 15, 2021, and EPA approves the label revisions by May 31, 2021, this revised label must be on all Acuron product (100-1466) that Syngenta releases for shipment as of September 30, 2021. If Syngenta submits the label revisions by April 15, 2021, but EPA has not approved the label revisions by May 31, EPA and Syngenta will discuss and establish a revised schedule for making the revisions.
5. A. Failure to Achieve Herbicide Use Reduction: If neither the 2018 nor the 2020 reduction milestone is reached, Syngenta agrees that EPA may, at its sole discretion, issue an order

cancelling the 100-1466 registration without a hearing (subject to the rights reserved in paragraph 5.B. below). If the 2018 milestone is reached, the 2020 milestone is not reached, label revisions are undertaken for the 2021 growing season as provided above, and the 2020 milestone is not reached in the 2021 growing season (as demonstrated by the annual report submitted in March 2022), then Syngenta agrees that EPA may, at its sole discretion, issue an order cancelling the 100-1466 registration without a hearing (subject to the rights reserved in paragraph 5.B. below). Before issuing any such order based on either of those two possibilities, EPA will consider the actual use reduction achieved and any other factors that may have affected the use reductions that were outside of Syngenta's control. If EPA nonetheless decides to issue a cancellation order, it will notify Syngenta in writing of its intention to cancel the registration and will specify in such notification the basis for its conclusion that Syngenta has failed to meet the 2020 milestone in the 2020 or 2021 growing season, whichever applies. If within ten (10) business days of receipt of such notification Syngenta submits to the agency a request in writing to meet with the Director of the Office of Pesticide Programs ("Office Director") before a cancellation order is issued, the agency will not issue a cancellation order before providing Syngenta an opportunity to meet with the Office Director to discuss whether cancellation is appropriate. The decision of the Office Director thereafter shall be final. Syngenta agrees to issuance of a cancellation order pursuant to this paragraph provided that it would contain provisions allowing Syngenta to sell remaining 100-1466 stocks (produced, labeled, and released for shipment as of the effective date of cancellation); allowing persons other than Syngenta to sell and distribute existing stocks; and allowing use of such existing stocks in accordance with the label on the product until exhausted.

B. Syngenta agrees that it will not challenge (or provide financial or technical assistance to anyone challenging) in any administrative forum the issuance of any cancellation order that conforms to all the terms of paragraph 5.A. of this notice. Notwithstanding the foregoing sentence, nothing in this paragraph shall limit Syngenta's right to: 1) defend against an EPA cancellation proceeding brought outside the terms of this letter; 2) support or participate in any action (in any forum) that challenges any EPA policy or practice of general applicability that may affect the ultimate requirements set forth in EPA's registration approval letter for 100-1466, including the support of or participation in the activities of any trade association or coalition that is involved in any such challenge; 3) defend any personal injury, toxic tort, or other such suit and raise any defense in such suit; 4) submit applications to amend any requirement or milestone in this letter; or 5) enforce rights under FIFRA or EPA's implementing regulations other than rights waived in this letter.

6. A. Sustained Achievement: The atrazine reduction addressed in this notice will be sustained. Syngenta will continue annual reporting until March 31, 2024, or until such time that the 2020 milestone has been documented in three consecutive annual reports, whichever is sooner.

B. Syngenta will also develop and submit for EPA approval a product stewardship program designed to achieve the milestone. The program will commence upon EPA approval, and will include at least the following elements:

- The ability to minimize the tank-mixing of additional herbicides with Acuron due to the high level of control of difficult weeds provided by bicyclopyrone. For example, awareness of

reduced atrazine rates needed to achieve weed control with Acuron, as well as the excellent fit for Acuron in one-pass weed control programs in corn will be included.

- The key benefits of the diversity of multiple mode-of-action active ingredients for management of resistant weeds.
  - The importance of Integrated Pest Management (IPM) and soil stewardship practices (such as low/no-till practices).
  - Education and outreach on watershed stewardship and conservation practices, and the use of Best Management Practices to reduce the offsite movement of
7. Submit one copy of the revised final printed label for the record before you release the product for shipment.

Should you wish to add/retain a reference to the company's website on your label, then please be aware that the website becomes labeling under the Federal Insecticide Fungicide and Rodenticide Act and is subject to review by the Agency. If the website is false or misleading, the product would be misbranded and unlawful to sell or distribute under FIFRA section 12(a)(1)(E). 40 CFR 156.10(a)(5) list examples of statements EPA may consider false or misleading. In addition, regardless of whether a website is referenced on your product's label, claims made on the website may not substantially differ from those claims approved through the registration process. Therefore, should the Agency find or if it is brought to our attention that a website contains false or misleading statements or claims substantially differing from the EPA approved registration, the website will be referred to the EPA's Office of Enforcement and Compliance.

If you fail to satisfy these data requirements, EPA will consider appropriate regulatory action including, among other things, cancellation under FIFRA section 6(e). Your release for shipment of the product constitutes acceptance of these conditions. A stamped copy of the label is enclosed for your records. Please also note that the record for this product currently contains the following CSFs:

- c. Basic CSF dated 9-6-12
- d. Alternate CSF #1 dated 9-6-12
- e. Alternate CSF #2 dated 9-6-12

If you have any questions, please contact Erik Kraft by phone at 703-308-9358, or via email at [kraft.erik@epa.gov](mailto:kraft.erik@epa.gov).



Rachel Holloman, Branch Chief  
Fungicide and Herbicide Branch, Registration Division (7505P)

Enclosure



**RESTRICTED USE PESTICIDE**  
**(GROUND AND SURFACE WATER CONCERNS)**  
**FOR RETAIL SALE TO AND USE ONLY BY CERTIFIED APPLICATORS OR PERSONS**  
**UNDER THEIR DIRECT SUPERVISION, AND ONLY FOR THOSE USES COVERED BY THE**  
**CERTIFIED APPLICATOR'S CERTIFICATION.**  
**THIS PRODUCT IS A RESTRICTED-USE HERBICIDE DUE TO GROUND AND SURFACE**  
**WATER CONCERNS. USERS MUST READ AND FOLLOW ALL PRECAUTIONARY**  
**STATEMENTS AND INSTRUCTIONS FOR USE IN ORDER TO MINIMIZE POTENTIAL FOR**  
**ATRAZINE TO REACH GROUND AND SURFACE WATER.**

Sale, use and distribution of this product in Nassau and Suffolk Counties in the State of New York is prohibited.

**GROUP 5 15 27 HERBICIDES**

### Acuron™ Herbicide

A Herbicide for Control of Annual Grass and Broadleaf Weeds in Field Corn, Seed Corn, Silage Corn, Sweet Corn and Yellow Popcorn

#### Active Ingredients\*:

S-Metolachlor: (CAS No. 87392-12-9).....	23.40%
Atrazine**: (CAS No. 1912-24-9).....	10.93%
Mesotrione: (CAS No. 104206-82-8).....	2.60%
Bicyclopyrone: (CAS No. 352010-68-5).....	0.65%
Other Ingredients:	62.42%
Total:	100.00%

\*Active ingredients per gallon: Atrazine 1.0 pound, Bicyclopyrone 0.06 pounds, Mesotrione 0.24 pounds and S-metolachlor 2.14 pounds.

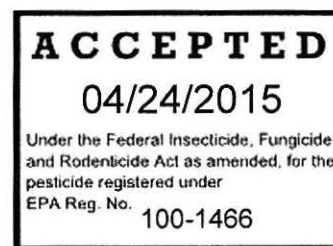
\*\*Atrazine with a maximum of 0.45% related triazines.

**KEEP OUT OF REACH OF CHILDREN.**

## CAUTION

See additional precautionary statements and directions for use on label.

EPA Reg. No. 100-XXXX



2.5 gallons Net Contents	120 gallons Net Contents	220 gallons Net Contents	330 gallons Net Contents	____ gallons[bulk] Net Contents
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<b>FIRST AID</b>	
<b>If swallowed</b>	<ul style="list-style-type: none"> <li>• Call a Poison Control Center or doctor immediately for treatment advice.</li> <li>• Have person sip a glass of water if able to swallow.</li> <li>• Do not induce vomiting unless told to do so by a poison control center or doctor.</li> <li>• Do not give anything to an unconscious person.</li> </ul>
<b>If in eyes</b>	<ul style="list-style-type: none"> <li>• Hold eye open and rinse slowly and gently with water for 15-20 minutes.</li> <li>• Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye.</li> <li>• Call a Poison Control Center or doctor for treatment advice.</li> </ul>
<b>If on skin or clothing</b>	<ul style="list-style-type: none"> <li>• Take off contaminated clothing.</li> <li>• Rinse skin immediately with plenty of water for 15-20 minutes.</li> <li>• Call a Poison Control Center or doctor for treatment advice.</li> </ul>
<b>If inhaled</b>	<ul style="list-style-type: none"> <li>• Move person to fresh air.</li> <li>• If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth, if possible.</li> <li>• Call a Poison Control Center or doctor for further treatment advice.</li> </ul>
Have the product container or label with you when calling a poison control center or doctor, or going for treatment.	
<p align="center"><b>HOT LINE NUMBER</b>            For 24 Hour Medical Emergency Assistance (Human or Animal)            or Chemical Emergency Assistance (Spill, Leak, Fire or Accident),            Call  <b>1-800-888-8372</b></p>	

## **PRECAUTIONARY STATEMENTS**

### **HAZARDS TO HUMANS AND DOMESTIC ANIMALS**

#### **CAUTION**

Harmful if swallowed. Causes moderate eye injury. Avoid contact with eyes, skin, or clothing. Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals.

#### **Personal Protective Equipment (PPE)**

Some materials that are chemical-resistant to this product are listed below.

**Mixers, Loaders, Applicators and other handlers must wear:**

- Coveralls over short-sleeved shirt and short pants
- Chemical-resistant gloves – Category A (e.g. barrier laminate, butyl rubber, nitrile rubber, neoprene rubber, natural rubber, polyethylene, polyvinyl chloride (PVC) or Viton®)
- Chemical-resistant footwear plus socks
- Chemical-resistant apron when mixing/loading, cleaning up spills, or cleaning equipment, or otherwise exposed to the concentrate
- Chemical-resistant headgear for overhead exposure.

See engineering controls for additional requirements

Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables exist, use detergent and hot water. Keep and wash PPE separately from other laundry. Discard clothing and other absorbent materials that have been drenched or heavily contaminated with this product's concentrate. Do not reuse them.

**Engineering Control Statements**

When applicators use closed systems or enclosed cabs in a manner that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides [40 CFR 170.240(d)(5)], the handler PPE requirements may be reduced or modified as specified in the WPS.

**User Safety Recommendations**

**Users should:**

- Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet.
- Remove clothing/PPE immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.
- Remove PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

**Environmental Hazards**

Do not apply directly to water, to areas where surface water is present, or to intertidal areas below the mean high water mark. Do not contaminate water when disposing of equipment wash water or rinsate. This product contains atrazine, which has been shown to be toxic to aquatic invertebrates. Runoff and drift from treated areas may be hazardous to aquatic organisms in neighboring areas. Do not apply when weather conditions favor drift from treated areas.

### **Ground Water Advisory**

Acuron contains the active ingredients atrazine, S-metolachlor, and bicyclopyrone.

Atrazine can travel (seep or leach) through soil and can enter ground water which may be used as drinking water. Atrazine has been found in ground water. Users are advised not to apply atrazine to sand and loamy sand soils where the water table (ground water) is close to the surface and where these soils are very permeable, i.e., well-drained. Your local agricultural agencies can provide further information on the type of soil in your area and the location of ground water.

S-metolachlor has the potential to leach through soil into ground water under certain conditions as a result of agricultural use. Use of this product in areas where soils are permeable, particularly where the water table is shallow may result in ground water contamination.

Bicyclopyrone is known to leach through soil into ground water under certain conditions as a result of label use. This chemical may leach into ground water if used in areas where soils are permeable, particularly where the water table is shallow.

### **Surface Water Advisory**

This product has a high potential for reaching surface water via runoff for several months or more after application. A level, well-maintained vegetative buffer strip between areas to which this product is applied and surface water features such as ponds, streams, and springs will reduce the potential loading of bicyclopyrone from runoff water and sediment. Runoff of this product will be reduced by avoiding applications when rainfall or irrigation is expected to occur within 48 hours.

### **Mixing/Loading Instructions**

Care must be taken when using this product to prevent back-siphoning into wells, spills, or improper disposal of excess pesticide, spray mixtures, or rinsates.

Check valves or antisiphoning devices must be used on mixing equipment.

This product must not be mixed/loaded or used within 50 ft. of wells, including abandoned wells, drainage wells, and sink holes. Operations that involve mixing, loading, rinsing, or washing to this product into or from pesticide handling or application equipment or containers within 50 ft. of any well are prohibited, unless conducted on an impervious pad constructed to withstand the weight of the heaviest load that may be positioned on or moved across the pad. Such a pad shall be designed and maintained to contain any product spills or equipment leaks, container or equipment rinse or wash water, and rain water that may fall on the pad. Surface water shall not be allowed to either flow over or from the pad, which means the pad must be self-contained. The pad

shall be sloped to facilitate material removal. An unroofed pad shall be of sufficient capacity to contain, at a minimum, 110% of the capacity of the largest pesticide container or application equipment on the pad. A pad that is covered by a roof of sufficient size to completely exclude precipitation from contact with the pad shall have a minimum containment capacity of 100% of the capacity of the largest pesticide container or application equipment on the pad. Containment capacities as described above shall be maintained at all times. The above specified minimum containment capacities do not apply to vehicles when delivering pesticide shipments to the mixing/loading site.

Additional State imposed requirements regarding well head setbacks and operational area containment must be observed.

This product must not be mixed or loaded within 50 ft. of perennial or intermittent streams and rivers, natural or impounded lakes and reservoirs. This product may not be applied within 66 ft. of the points where field surface water runoff enters perennial or intermittent streams and rivers or within 200 ft. from the edge of natural or impounded lakes and reservoirs. If this product is applied to highly erodible land, the 66 ft. buffer or setback from runoff entry points must be planted to crop, or seeded with grass or other suitable crop.

#### **Tile-Outletted Terraced Fields Containing Standpipes**

One of the following restrictions must be used in applying atrazine to tile-outletted terraced fields containing standpipes:

1. Do not apply this product within 66 ft. of standpipes in tile-outletted terraced fields.
2. Apply this product to the entire tile-outletted terraced field and immediately incorporate it to a depth of 2-3 inches in the entire field.
3. Apply this product to the entire tile-outletted terraced field under a no-till practice only when a high crop residue management practice is practiced. High crop residue management is described as a crop management practice where little or no crop residue is removed from the field during and after crop harvest.

#### **Physical and Chemical Hazards**

Do not use or store near heat or open flame.

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**CONDITIONS OF SALE AND LIMITATION OF WARRANTY AND LIABILITY**

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**NOTICE:** Read the entire Directions for Use and Conditions of Sale and Limitation of Warranty and Liability before buying or using this product. If the terms are not acceptable, return the product at once, unopened, and the purchase price will be refunded.

The Directions for Use of this product must be followed carefully. It is impossible to eliminate all risks inherently associated with the use of this product. Crop injury, ineffectiveness or other unintended consequences may result because of such factors as manner of use or application, weather or crop conditions, presence of other materials or other influencing factors in the use of the product, which are beyond the control of SYNGENTA CROP PROTECTION, LLC or Seller. To the extent permitted by applicable law, Buyer and User agree to hold SYNGENTA and Seller harmless for any claims relating to such factors.

SYNGENTA warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes stated in the Directions for Use, subject to the inherent risks referred to above, when used in accordance with directions under normal use conditions. To the extent permitted by applicable law: (1) this warranty does not extend to the use of the product contrary to label instructions, or under conditions not reasonably foreseeable to or beyond the control of Seller or SYNGENTA, and, (2) Buyer and User assume the risk of any such use. To the extent permitted by applicable law, SYNGENTA MAKES NO WARRANTIES OF MERCHANTABILITY OR OF FITNESS FOR A PARTICULAR PURPOSE NOR ANY OTHER EXPRESS OR IMPLIED WARRANTY EXCEPT AS WARRANTED BY THIS LABEL.

To the extent permitted by applicable law, in no event shall SYNGENTA or Seller be liable for any incidental, consequential or special damages resulting from the use or handling of this product. **TO THE EXTENT PERMITTED BY APPLICABLE LAW, THE EXCLUSIVE REMEDY OF THE USER OR BUYER, AND THE EXCLUSIVE LIABILITY OF SYNGENTA AND SELLER FOR ANY AND ALL CLAIMS, LOSSES, INJURIES OR DAMAGES (INCLUDING CLAIMS BASED ON BREACH OF WARRANTY, CONTRACT, NEGLIGENCE, TORT, STRICT LIABILITY OR OTHERWISE) RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT, SHALL BE THE RETURN OF THE PURCHASE PRICE OF THE PRODUCT OR, AT THE ELECTION OF SYNGENTA OR SELLER, THE REPLACEMENT OF THE PRODUCT.**

SYNGENTA and Seller offer this product, and Buyer and User accept it, subject to the foregoing Conditions of Sale and Limitation of Warranty and Liability, which may not be modified except by written agreement signed by a duly authorized representative of SYNGENTA.



## DIRECTIONS FOR USE

It is a violation of Federal law to use this product in a manner inconsistent with its labeling.

ANY USE OF THIS PRODUCT IN AN AREA WHERE USE IS PROHIBITED IS A VIOLATION OF FEDERAL LAW. Before using this product, you must consult the Atrazine Watershed Information Center (AWIC) to determine whether the use of this product is prohibited in your watershed. AWIC can be accessed through [www.atrazine-watershed.info](http://www.atrazine-watershed.info) or 1-866-365-3014. If use of this product is prohibited in your watershed, you may return this product to your point of purchase or contact Syngenta Crop Protection, LLC for a refund.

Do not apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application. For any requirements specific to your State or Tribe, consult the agency responsible for pesticide regulation.

### AGRICULTURAL USE REQUIREMENTS

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR part 170. This Standard contains requirements for the protection of agricultural workers on farms, forests, nurseries, and greenhouses, and handlers of agricultural pesticides. It contains requirements for training, decontamination, notification, and emergency assistance. It also contains specific instructions and exceptions pertaining to the statements on this label about personal protective equipment (PPE), and restricted-entry interval. The requirements in this box only apply to uses of this product that are covered by the Worker Protection Standard.

**Do not enter or allow worker entry into treated areas during the restricted-entry interval (REI) of 24 hours.**

For early entry to treated areas that is permitted under the Worker Protection Standard and that involves contact with anything that has been treated, such as plants, soil and water, wear:

- Coveralls over short-sleeved shirt and short pants
- Chemical-resistant gloves – Category A (e.g. barrier laminate, butyl rubber, nitrile rubber, neoprene rubber, natural rubber, polyethylene, polyvinyl chloride (PVC) or Viton)
- Chemical resistant footwear plus socks
- Chemical-resistant headgear for overhead exposure.

**FAILURE TO FOLLOW THE DIRECTIONS FOR USE AND PRECAUTIONS ON THIS LABEL MAY RESULT IN POOR WEED CONTROL, CROP INJURY, OR ILLEGAL RESIDUES.**



**Sale, use and distribution of this product in Nassau and Suffolk Counties in the State of New York is prohibited.**

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## **PRODUCT INFORMATION**

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Acuron may be used preemergence and postemergence in the culture of field corn, seed corn, and silage corn. Acuron may also be used in the culture of sweet corn and yellow popcorn but the application must be made prior to crop emergence, (i.e., preemergence) or severe crop injury may occur.

Acuron is a combination of the herbicides: atrazine, bicyclopyrone, mesotrione and S-metolachlor plus the safener benoxacor. Acuron is recommended for management of the weed species listed in Tables 1 and 2.

### **ATRAZINE, MESOTRIONE AND S-METOLACHLOR HERBICIDE RATE LIMITATIONS**

Certain states may have established rate limitations within specific geographical areas for the use of atrazine. These more restrictive/protective requirements must be followed. Consult your state lead pesticide control agency for additional information. It is a violation of this label to deviate from state use regulations.

- When tank mixing or sequentially applying atrazine or products containing atrazine with Acuron to corn, do not exceed an application rate of 2.0 lb active ingredient of atrazine per acre for any single application and the total pounds of atrazine applied (lb. a.i. per acre) must not exceed 2.5 lb active ingredient per acre per year.
- Maximum broadcast application rates for atrazine in corn must be as follows:
  - If no atrazine was applied prior to corn emergence, apply a maximum of 2.0 lb. a.i./A broadcast. If a postemergence treatment is required following an earlier herbicide application, the total atrazine applied may not exceed 2.5 lbs. a.i./A per calendar year.
  - Apply a maximum of 2.0 lb. a.i./A as a single preemergence application on soils that are not highly erodible or on highly erodible soils (as defined by the Natural Resource Conservation Service) if at least 30% of the soil is covered with plant residues.
  - Apply a maximum of 1.6 lb. a.i./A as a single preemergence application on highly erodible (as defined by the Natural Resource Conservation Service) soils if <30% of the surface is covered with plant residues; or 2.0 lbs. a.i./A if only applied postemergence.

**Note:** For purposes of calculating total atrazine active ingredient applied, Acuron contains 1.0 lb. a.i. atrazine plus related per gallon.

Do not exceed label dosage rates, nor combined maximum annual rates for mesotrione (no more than 0.24 lb of mesotrione active ingredient must be applied per acre of corn per year), and S-metolachlor (the maximum annual use rate per year is 3.71 lb ai/A for corn). Do not apply more than 0.045 lb ai/A of bicyclopyrone for corn.

## ACURON USE PRECAUTIONS

- Applied according to directions and under normal growing conditions, Acuron will not harm the treated crop. During germination and early stages of growth, extended periods of unusually cold and wet or hot and dry weather, insect or plant disease attack, carryover pesticide residues, the use of certain soil applied systemic insecticides, improperly placed fertilizers or soil insecticides, may weaken crop seedlings. Acuron used under these conditions could result in crop injury.
- Where reference is made to weeds partially controlled, partial control can either mean erratic control from good to poor or consistent control at a level below that generally considered acceptable for commercial weed control.
- Dry weather following preemergence application of Acuron or a Acuron tank mixture may reduce effectiveness. If possible, cultivate if weeds develop.
- Applying Acuron postemergence to corn that has received an at-plant application of Counter® insecticide can result in severe corn injury. Temporary corn injury may occur if Acuron is applied to emerged corn where organophosphate insecticides other than Counter were applied at planting.
- Postemergence (emerged corn) applications of any organophosphate or carbamate insecticide within 7 days before or 7 days after a Acuron application may result in severe corn injury.

## ACURON USE RESTRICTIONS

- Grazing Restriction: To avoid possible illegal residues, do not graze or feed forage from treated areas for 45 days following application.
- Pre-Harvest Interval (PHI): Corn (for grain, seed, or silage) may be treated up to 12 inches tall. Do not harvest forage within 60 days after application.
- Do not apply more than 3.0 qt of Acuron per acre per growing year.
- Do not use aerial application to apply Acuron.
- Do not apply Acuron to sweet corn or yellow popcorn after the crop has emerged or severe crop injury may occur.

- Do not use Acuron on any crop other than corn (for grain, seed, or silage), sweet corn (preemergence applications only) or yellow popcorn (preemergence applications only).
- Do not use Acuron in the culture of white popcorn or ornamental (Indian) corn or injury may occur.
- Do not contaminate irrigation water used for crops or water used for domestic purposes.
- Thoroughly clean sprayer or other application device before using. Dispose of cleaning solution in a responsible manner. Do not use a sprayer or applicator contaminated with other materials, or crop damage or sprayer clogging of the application device may occur.
- Read and observe all precautions and limitations on this label and the label of each product used in tank mixtures.
- Do not make postemergence (emerged corn) applications of Acuron in a tank mix with any organophosphate or carbamate insecticide, or severe corn injury may occur.
- Do not apply under conditions which favor runoff or wind erosion of soil containing this product to non-target areas. To prevent off-site movement due to runoff or wind erosion:
  - Avoid treating powdery dry or light sand soils when conditions are favorable for wind erosion. Under these conditions, the soil surface should first be settled by rainfall or irrigation.
  - Do not apply to impervious substrates, such as paved or highly compacted surfaces.
  - Do not use tail water from the first flood or furrow irrigation of treated fields to treat nontarget crops, unless at least ½ inch of rainfall has occurred between application and the first irrigation.

## RESISTANCE MANAGEMENT

Acuron is a combination of atrazine, bicyclopyrone, mesotrione and S-metolachlor (Group 5 (atrazine), 15 (S-metolachlor), and 27 (bicyclopyrone and mesotrione) Herbicides).

Naturally occurring biotypes of certain weed species with resistance to triazines, ALS, PPO, Glycine (glyphosate) and HPPD herbicides are known to exist. If biotypes of weeds resistant to triazines, ALS, PPO and glycine inhibitors are present in the field, this herbicide should control them if they are listed in Tables 1 and 2.

To reduce the risk of weeds developing resistance to HPPD inhibitors, implement a program including both preemergence and/or postemergence herbicides that provide effective control of all weeds using multiple modes of action. This includes scouting fields before application to ensure the herbicide will be appropriate for the weeds present. Scout fields and eliminate weed escapes. If suspected weed resistance is observed against a particular weed species contact your Syngenta or retailer representative or call Syngenta Customer Service (1-800-334-9481). Lack of weed control is not necessarily an indicator of weed resistance.

Consider weed resistance management strategies that include two or more modes of action where a minimum of two modes of action are effective at controlling the target weed when either are applied alone.

Read and follow all label directions.

Acuron Herbicide contains four herbicide active ingredients and three modes of action and can be an effective component of a weed resistance management strategy.

## **INTEGRATED PEST (WEED) MANAGEMENT**

Acuron may be integrated into an overall pest management strategy. Practices known to reduce weed development (tillage, crop competition) and herbicide use (weed scouting, proper application timing, banding, and rotations) should be followed wherever possible. Consult local agricultural and weed authorities for additional Integrated Pest Management strategies established for your area.

## **SOIL ORGANIC MATTER**

The organic matter of the soil on which the application is to be made must be known or determined prior to application. The use rate of Acuron is based on percent soil organic matter.

## **REDUCED AND NO-TILL SYSTEMS**

Acuron may be used in reduced and no-till systems. The highest levels of control will be obtained when applications are made as close to planting as possible. It is recommended that a burndown herbicide such as Gramoxone®, Touchdown® brands, Roundup® brands, or 2,4-D be tank mixed with Acuron in reduced or no-till systems if weeds are present at application and the corn has not yet emerged.

## **WEEDS CONTROLLED**

Acuron applied as directed in this label will control or suppress the weeds listed in Tables 1 and 2. Additional weeds may be controlled with tank mixes. See the **Acuron Tank Mix Combinations** section for recommended tank mix combinations. Always

consult the tank mix product labels for specific rates and use directions.

**Table 1. Weeds Controlled or Partially Controlled by Preemergence Applications of Acuron**

Common Name	Scientific Name	Weed Rating <sup>1</sup>
<b>Broadleaf Weeds</b>		
Amaranth, Palmer	<i>Amaranthus palmeri</i>	C
Amaranth, Powell	<i>Amaranthus powellii</i>	C
Bedstraw, catchweed	<i>Galium aparine</i>	PC
Beggarweed, Florida	<i>Desmodium tortuosum</i>	C
Buckwheat, wild	<i>Polygonum convolvulus</i>	C
Buffalobur	<i>Solanum rostratum</i>	C
Carpetweed	<i>Mollugo verticillata</i>	C
Chickweed, common	<i>Stellaria media</i>	C
Cocklebur, common	<i>Xanthium strumarium</i>	C <sup>2</sup>
Deadnettle, purple	<i>Lamium purpureum</i>	C
Devil's-claw	<i>Proboscidea louisianica</i>	C
Galinsoga	<i>Galinsoga parviflora</i>	C
Henbit	<i>Lamium amplexicaule</i>	C
Horseweed (maretail)	<i>Conyza Canadensis</i>	C
Jimsonweed	<i>Datura stramonium</i>	C
Kochia	<i>Kochia scoparia</i>	C
Lambsquarters, common	<i>Chenopodium album</i>	C
Mallow, Venice	<i>Hibiscus trionum</i>	C
Morningglory, ivyleaf/entireleaf	<i>Ipomoea hederacea</i>	C <sup>2</sup>
Mustard, wild	<i>Brassica kaber</i>	C
Nightshade, black	<i>Solanum nigrum</i>	C
Nightshade, eastern black	<i>Solanum ptycanthum</i>	C
Nightshade, hairy	<i>Solanum sarrachoides</i>	C
Pigweed, redroot	<i>Amaranthus retroflexus</i>	C
Pigweed, smooth	<i>Amaranthus hybridus</i>	C
Puncturevine	<i>Tribulus terrestris</i>	C
Purslane, common	<i>Portulaca oleracea</i>	C
Pusley, Florida	<i>Richardia scabra</i>	C

Common Name	Scientific Name	Weed Rating <sup>1</sup>
Radish, wild	<i>Raphanus raphanistrum</i>	C
Ragweed, common	<i>Ambrosia artemisiifolia</i>	C
Ragweed, giant	<i>Ambrosia trifida</i>	C
Sesbania, hemp	<i>Sesbania exaltata</i>	C
Shepherd's-purse	<i>Capsella bursa-pastoris</i>	C
Sicklepod	<i>Cassia obtusifolia</i>	C
Sida, prickly	<i>Sida spinosa</i>	PC
Smartweed, ladythumb	<i>Polygonum persicaria</i>	C
Smartweed, Pennsylvania	<i>Polygonum pennsylvanicum</i>	C
Sunflower, common	<i>Helianthus annuus</i>	PC
Thistle, Russian	<i>Salsola tragus</i>	C
Velvetleaf	<i>Abutilon theophrasti</i>	C
Waterhemp, common	<i>Amaranthus rudis</i>	C
Waterhemp, tall	<i>Amaranthus tuberculatus</i>	C
<b>Grass Weeds</b>		
Barnyardgrass	<i>Echinochloa crus-galli</i>	C
Crabgrass	<i>Digitaria spp.</i>	C
Crowfootgrass	<i>Dactyloctenium aegyptium</i>	C
Cupgrass, prairie	<i>Eriochloa contracta</i>	C
Cupgrass, Southwestern	<i>Eriochloa gracilis</i>	C
Cupgrass, woolly	<i>Eriochloa villosa</i>	PC
Foxtail, giant	<i>Setaria faberi</i>	C
Foxtail, green	<i>Setaria viridis</i>	C
Foxtail, robust (purple, white)	<i>Setaria spp.</i>	C
Foxtail, yellow	<i>Setaria pumila</i>	C
Goosegrass	<i>Eleusine indica</i>	C
Johnsongrass, seedling	<i>Sorghum halepense</i>	PC
Millet, foxtail	<i>Setaria italica</i>	C
Millet, wild proso	<i>Panicum miliaceum</i>	PC
Panicum, Texas	<i>Panicum texanum</i>	PC
Rice, red	<i>Oryza sativa</i>	C
Sandbur, field	<i>Cenchrus incertus</i>	PC
Shattercane	<i>Sorghum bicolor</i>	PC



Common Name	Scientific Name	Weed Rating <sup>1</sup>
Signalgrass, broadleaf	<i>Brachiaria platyphylla</i>	C <sup>2</sup>
Signalgrass, narrowleaf	<i>Brachiaria piligera</i>	C
Sprangletop, red	<i>Leptochloa filiformis</i>	C
Starbur, bristly	<i>Acanthospermum hispidum</i>	C
Witchgrass	<i>Panicum capillare</i>	C
<b>Sedges</b>		
Nutsedge, Yellow	<i>Cyperus esculentus</i>	C

<sup>1</sup> C = Control, PC = Partial Control

<sup>2</sup> May require a tank-mix partner (e.g. atrazine) for control of heavy populations

Thoroughly till soil or make an application of a burndown herbicide to control emerging weeds. Plant crop immediately after tillage.

If a significant rainfall does not occur within 7 days after application, weed control may be decreased. If irrigation is available, apply ½ to 1 inch of water. If irrigation is not available, a uniform shallow cultivation is recommended as soon as weeds emerge.

**Table 2. Weeds Controlled or Partially Controlled by Early Postemergence Applications of Acuron**

Common Name	Scientific Name	Weed Rating <sup>1</sup>
<b>Broadleaf Weeds</b>		
Amaranth, Palmer	<i>Amaranthus palmeri</i>	C
Amaranth, Powell	<i>Amaranthus powellii</i>	C
Bedstraw, catchweed	<i>Galium aparine</i>	PC
Beggarweed, Florida	<i>Desmodium tortuosum</i>	C
Buckwheat, wild	<i>Polygonum convolvulus</i>	C
Buffalobur	<i>Solanum rostratum</i>	C
Carpetweed	<i>Mollugo verticillata</i>	C
Chickweed, common	<i>Stellaria media</i>	C
Cocklebur, common	<i>Xanthium strumarium</i>	C
Dandelion	<i>Taraxacum officinale</i>	PC
Deadnettle, purple	<i>Lamium purpureum</i>	C
Devil's-claw	<i>Proboscidea louisianica</i>	C
Galinsoga	<i>Galinsoga parviflora</i>	C
Hemp	<i>Cannabis sativa</i>	C
Henbit	<i>Lamium amplexicaule</i>	C
Horsenettle	<i>Solanum carolinense</i>	C
Horseweed (maretail)	<i>Conyza canadensis</i>	C
Jimsonweed	<i>Datura stramonium</i>	C
Kochia	<i>Kochia scoparia</i>	C
Lambsquarters, common	<i>Chenopodium album</i>	C
Mallow, Venice	<i>Hibiscus trionum</i>	C
Marestail	<i>Hippuris vulgaris</i>	C
Morningglory, ivyleaf/entireleaf	<i>Ipomoea hederacea</i>	C
Mustard, wild	<i>Brassica kaber</i>	C
Nightshade, black	<i>Solanum nigrum</i>	C
Nightshade, eastern black	<i>Solanum ptycanthum</i>	C
Nightshade, hairy	<i>Solanum sarachoides</i>	C
Pigweed, redroot	<i>Amaranthus retroflexus</i>	C
Pigweed, smooth	<i>Amaranthus hybridus</i>	C
Pokeweed	<i>Phytolacca americana</i>	C

Common Name	Scientific Name	Weed Rating <sup>1</sup>
Potatoes, volunteer	<i>Solanum</i> spp.	C
Purslane, common	<i>Portulaca oleracea</i>	C
Pusley, Florida	<i>Richardia scabra</i>	C
Radish, wild	<i>Raphanus raphanistrum</i>	C
Ragweed, common	<i>Ambrosia artemisiifolia</i>	C
Ragweed, giant	<i>Ambrosia trifida</i>	C
Sesbania, hemp	<i>Sesbania exaltata</i>	C
Shepherd's-purse	<i>Capsella bursa-pastoris</i>	C
Sida, prickly	<i>Sida spinosa</i>	C
Smartweed, ladysthumb	<i>Polygonum persicaria</i>	C
Smartweed, Pennsylvania	<i>Polygonum pensylvanicum</i>	C
Sunflower, common	<i>Helianthus annus</i>	C
Thistle, Canada	<i>Cirsium arvense</i>	C
Velvetleaf	<i>Abutilon theophrasti</i>	C
Waterhemp, common	<i>Amaranthus rudis</i>	C
Waterhemp, tall	<i>Amaranthus tuberculatus</i>	C
<b>Grass Weeds</b>		
Barnyardgrass	<i>Echinochloa crus-galli</i>	PC <sup>2</sup>
Crabgrass, large	<i>Digitaria sanguinalis</i>	C <sup>2</sup>
Foxtail, giant	<i>Setaria faberii</i>	PC <sup>2</sup>
Signalgrass, broadleaf	<i>Brachiaria platyphylla</i>	C <sup>2</sup>

<sup>1</sup> C = Control, PC = Partial Control

<sup>2</sup> Apply before the weed exceeds 2 inches in height

A tank mix of AAtrex® with Acuron can provide additional control of certain emerged annual grass weeds. Refer to the AAtrex label for weeds controlled and other restrictions.

## ROTATIONAL CROPS

When Acuron is applied as directed on this label, follow the crop rotation intervals in Table 3. If Acuron is tank mixed with other products, follow the most restrictive product's crop rotation interval.

Do not rotate to food or feed crops other than those listed on this label.

**Table 3. Time Interval Between Acuron Application and Replanting or Planting of Rotational Crop**

Crop	Replant/Rotational Interval
Field corn Seed corn Silage corn Sweet corn Yellow popcorn	Anytime <sup>1</sup>
Small grain cereals including wheat, barley and rye	4 Months
Cotton Dry beans <sup>2</sup> Peanuts Potato Rice Soybeans <sup>3,4</sup> Sorghum (all types)	10 Months <sup>5,6</sup>
All other rotational crops	18 Months

<sup>1</sup> Do not reapply Acuron.

<sup>2</sup> This rotational interval applies only to areas west of US highway 83 in the states of Colorado and Nebraska: If Acuron was applied to ground that was under center pivot irrigation and the soil pH is greater than 6.5, dry beans can be planted 10 months following application.

<sup>3</sup> Injury may occur to soybeans planted the year following application on soils having a calcareous surface layer if additional atrazine or atrazine-containing products are used.

<sup>4</sup> In eastern parts of the Dakotas, KS, western MN, and NE, do not rotate to soybeans for 18 months following application if the combined atrazine rate applied was more than 2.0 lbs. a.i./A, or equivalent band application rate, or soybean injury may occur.

<sup>5</sup> If applied after June 1, rotating to crops other than corn (all types) may result in crop injury.

<sup>6</sup> In the High Plains and Intermountain areas of the West, where rainfall is sparse and erratic or where irrigation is required, use only when corn (all types) or sorghum is to follow corn, or a crop of untreated corn (all types) or sorghum is to precede other rotational crops.

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## APPLICATION PROCEDURES

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### ADJUVANTS

When an adjuvant is to be used with this product, the use of an adjuvant that meets the standards of the Chemical Producers and Distributors Association (CPDA) adjuvant certification program is recommended.

Where Acuron is applied after the corn has emerged, a non-ionic surfactant (NIS) at 0.25% v/v (1 qt./100 gals.) may be used. The use of crop oil concentrate (COC) may result in temporary crop injury. If used, add COC at a rate not to exceed 1% v/v (1 gal./100 gals.) or not more than the equivalent of 1 qt./A. Do not use nitrogen based adjuvants (AMS or UAN) or methylated seed oil (MSO) with Acuron when applied alone to emerged corn, or when Acuron is applied as a postemergence tank mixture with other products, unless directed for a specific tank mix on this label or as part of a supplemental Acuron label. Any of these adjuvants may be used at a preemergence or preplant timing, i.e. where the corn crop has not yet emerged to increase burndown activity on existing weeds. Do not apply Acuron to emerged sweet corn or yellow popcorn or severe crop injury may occur.

For Acuron tank mixtures with Ignite® Herbicide applied to emerged field corn (LibertyLink® hybrids only), AMS may be added as directed on the Ignite label. However, AMS should be the only adjuvant added to this tank mixture, or severe crop injury may occur.

**Sprinkler Irrigation:** Do not apply Acuron by sprinkler irrigation. Use a sprinkler system only to incorporate Acuron after application. After Acuron has been applied, a sprinkler irrigation system set to deliver ½-1 inch of water may be used to incorporate the product. Using more than 1 inch of water could result in reduced performance. On sandy soil low in organic matter, use no more than ½ inch of water. Do not use flood irrigation to apply or incorporate Acuron.

### CULTIVATION

Should weeds develop; a shallow cultivation or rotary hoeing will generally result in improved weed control. If Acuron was incorporated, cultivate less than half the depth of incorporation.

If cultivation is necessary due to soil crusting, compaction, or escaped weeds, adjust equipment to run shallow and minimize soil movement. This will decrease the possibility of diluting or moving the herbicide from the weed control zone.

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## SPRAY EQUIPMENT

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### Ground Application

Spray nozzles should be uniformly spaced, the same size and type, and should provide accurate and uniform application. Use spray nozzles that provide medium to coarse droplet size to avoid drift yet provide good coverage. Ensure that all in-line strainer and nozzle screens in the sprayer are 50-mesh or coarser. Use a pump that can maintain the manufacturer's recommended pressure at the nozzles and provide proper agitation within the tank to keep the product dispersed. Lower pressures may be used with extended range or drift reduction nozzles as long as adequate coverage is maintained. Always ensure that agitation is maintained until spraying is completed, even if stopped for brief periods of time. If the agitation is stopped for more than 5 minutes, re-suspend the spray solution by running on full agitation prior to spraying.

**Preemergence:** Apply in a spray volume of 10-80 gals./A.

**Early Postemergence:** Good weed coverage is essential for optimum weed control. Boom height for broadcast over-the-top applications should be based on the height of the crop – at least 15 inches above the crop canopy, but only high enough to give uniform coverage. Apply in a spray volume of 10-30 gals./A. When weed foliage is dense, use a minimum spray volume of 20 gals./A. Flat fan nozzles of 80° or 110° are recommended for optimum postemergence coverage. Do not use floodjet nozzles or controlled droplet application equipment for postemergence applications. Nozzles may be angled forward 45° to enhance penetration of the crop and provide better coverage.

### Aerial Prohibition

Do not apply by air.

### Spray Drift

Do not apply when weather conditions may cause drift to nontarget areas. Drift may result in injury to adjacent crops and vegetation. To avoid spray drift, DO NOT apply when the wind speed is greater than 10 mph or during periods of temperature inversions.

AVOIDING SPRAY DRIFT AT THE APPLICATION SITE IS THE RESPONSIBILITY OF THE APPLICATOR.

The interaction of equipment and weather related factors determine the potential for spray drift. The applicator is responsible for considering these factors when making a decision.



## Information on Droplet Size

The most effective way to reduce spray drift potential is to apply large droplets. Use only nozzles producing medium to ultra coarse droplets. Do not use nozzles producing fine droplets.

### Controlling Droplet Size

- **Volume** - Use high flow rate nozzles to apply the highest practical spray volume. Nozzles with higher rated flows produce larger droplets.
- **Pressure** - Do not exceed the nozzle manufacturer's recommended pressures. For many nozzle types, lower pressure produces larger droplets. When higher flow rates are needed, use higher rate nozzles instead of increasing pressure.
- **Number of Nozzles** - Use the minimum number of nozzles that provide uniform coverage.

### Application Height

Applications must be made at the lowest height above the target area that still provides uniform coverage of the target. Making applications at the lowest yet effective height reduces exposure of droplets to wind.

### Wind

Drift potential is lowest when wind speeds are 10 mph or less. However, many factors, including droplet size, pressure, and equipment type determine drift potential at any given wind speed. **Note:** Local terrain can influence wind patterns.

Leave a 25-foot buffer downwind of the application to avoid drift to non-target areas. This buffer may be untreated corn rows or field border species maintained for this purpose.

### Temperature Inversions

Applications must not occur during a temperature inversion because drift potential is high. Temperature inversions restrict vertical air mixing, which causes small suspended droplets to remain in a concentrated cloud. This cloud can move in unpredictable directions due to the light variable winds common during inversions. Temperature inversions are characterized by increasing temperatures with altitude and are common on nights with limited cloud cover and light to no wind. They begin to form as the sun sets and often continue into the morning. Their presence can be indicated by ground fog; however, if fog is not present, inversions can also be identified by the movement of smoke from a ground source or an aircraft smoke generator. Smoke that layers and moves laterally in a concentrated cloud (under low wind conditions) indicates an

inversion, while smoke that moves upward and rapidly dissipates, indicates good vertical air mixing.

### **Non-Target Areas**

Do not apply this pesticide when the product may drift to non-target areas (i.e. residential areas, bodies of water, known habitat for threatened or endangered species, non-target crops).

### **Cleaning Equipment After Application**

Special attention must be given to cleaning equipment before spraying a crop other than corn. Mix only as much spray solution as needed.

1. Flush tank, hoses, boom, and nozzles with clean water.
2. Prepare a cleaning solution of 1 gal. of household ammonia per 25 gals. of water. Many commercial spray tank cleaners may be used.
3. Use a pressure washer to clean the inside of the spray tank with this solution. Take care to wash all parts of the tank, including the inside top surface. If a pressure washer is not available, completely fill the sprayer with the cleaning solution to ensure contact of the cleaning solution with all internal surfaces of the tank and plumbing. Start agitation in the sprayer and thoroughly recirculate the cleaning solution for at least 15 minutes. All visible deposits must be removed from the spraying system.
4. Flush hoses, spray lines, and nozzles for at least 1 minute with the cleaning solution.
5. Dispose of rinsate from steps 1-3 in an appropriate manner.
6. Repeat steps 2-5.
7. Remove nozzles, screens, and strainers and clean separately in the ammonia solution after completing the above procedures.
8. Rinse the complete spraying system with clean water.

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## **MIXING PROCEDURES**

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### **CARRIER**

**Preemergence Applications:** Either clean water or liquid fertilizers, excluding suspension fertilizers, may be used as carriers for preemergence applications. If fluid fertilizers are used, a compatibility test must be done. See Compatibility Test section for compatibility testing. Even if Acuron is physically compatible with a fluid fertilizer, constant agitation is necessary to maintain a uniform mixture during application.

**Postemergence Applications:** Use only clean water as the carrier when applying Acuron after corn emergence. Do not apply Acuron to emerged sweet corn or yellow popcorn.

## **ADDING ACURON TO THE SPRAY TANK**

The spray tank must be clean, thoroughly rinsed and decontaminated before adding either Acuron alone or with tank mix partners. If water is used as the carrier, use clean water.

**Acuron Applied Alone:** When Acuron is used alone, add the recommended amount of Acuron to the spray tank when the tank is half full of the carrier, then add the rest of the water or fluid fertilizer. Provide sufficient agitation during mixing and application to maintain a uniform mixture.

**Acuron Applied in Tank Mixtures:** Refer to the sections on this label for recommended tank mixes. Always refer to labels of the tank mix partners for mixing directions and precautions. Do not exceed label dosage rates, nor combined maximum seasonal doses for atrazine, bicyclopyrone, mesotrione, or S-metolachlor. This product cannot be mixed with any product bearing a label prohibition against such mixing. If a tank mixture is used, a compatibility test must be done. See Compatibility Test section for details on the procedure for such a test.

If the tank mix partner is compatible, fill the tank half full of the carrier. Start and continue agitation throughout mixing and spraying. All return lines to the spray tank must discharge below the liquid level. Prepare the components and add in the following order:

1. If a wettable powder or dry flowable formulation is used, make a slurry with water and add it slowly through the screen into the tank. Agitate during the procedure.
2. If a flowable formulation is used, add slowly through screen into the tank. Mixing and compatibility may be improved when a dry flowable is diluted with water before adding to the tank.
3. Add Acuron.
4. Add any other tank mix products next with emulsifiable concentrates added last.
5. Add an adjuvant last, if needed.
6. Complete filling the sprayer tank and continue agitation. Apply as soon as possible after spray mixture is prepared. Do not leave mixture in spray tank overnight without agitation or unattended.

## **TANK MIX COMPATIBILITY TEST**

A compatibility test is recommended before tank mixing to ensure compatibility of Acuron with other pesticides. The following test assumes a spray volume of 25 gals/A. For other spray volumes, make appropriate changes in the ingredients.

**Note:** Nitrogen solutions or complete liquid fertilizers, excluding suspension fertilizers, may replace all or part of the water in the spray. Because liquid fertilizers vary, even within the same analysis, **always check compatibility with pesticide(s) before use.** Incompatibility of tank mixtures is more common with mixtures of fertilizer and pesticides.

### Test Procedure

1. Add 1.0 pt. of carrier (fertilizer or water) to each of two 1 qt. jars with tight lids.  
**Note:** Use the same source of water that will be used for the tank mix and conduct the test at the temperature the tank mix will be applied.
2. To one of the jars, add 1/4 tsp. or 1.2 milliliters of a compatibility agent approved for this use, such as Compex or Unite (1/4 tsp. is equivalent to 2.0 pts./100 gals. spray). Shake or stir gently to mix.
3. To both jars, add the appropriate amount of pesticide(s) in their relative proportions based on recommended label rates. If more than one pesticide is used, add them separately with dry pesticides first, flowables next, and emulsifiable concentrates last. After each addition, shake or stir gently to thoroughly mix.
4. After adding all ingredients, put lids on and tighten, and invert each jar ten times to mix. Let the mixtures stand 15-30 minutes and then look for separation, large flakes, precipitates, gels, heavy oily film on the jar, or other signs of incompatibility. Determine if the compatibility agent is needed in the spray mixture by comparing the two jars. If either mixture separates, but can be remixed readily, the mixture can be sprayed as long as good agitation is used. If the mixtures are incompatible, test the following methods of improving compatibility: (a) slurry the dry pesticide(s) in water before addition, or (b) add 1/2 the compatibility agent to the fertilizer or water and the other 1/2 to the emulsifiable concentrate or flowable pesticide before addition to the mixture. If incompatibility is still observed, do not use the mixture.
5. After compatibility testing is complete, dispose of any pesticide wastes in accordance with the **Storage and Disposal** section in this label.

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### CROP USE DIRECTIONS

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Acuron is to be used for preemergence use for control of most annual grass and broadleaf weeds in field corn, seed corn, silage corn, sweet corn and yellow popcorn. Acuron may also be applied early postemergence for the control of broadleaf weeds in field corn, seed corn and silage corn. Do not apply Acuron to emerged sweet corn or yellow popcorn or severe crop injury will occur.

See Table 1 and 2 for a list of weeds controlled.

**Acuron Use Rate:** The soil organic matter content of the field on which Acuron is to be applied must be known. On soils with greater than 10% organic matter, Acuron activity may be affected resulting in reduced or poor weed control.

Soil Organic Matter Content	Application rate <sup>1</sup>
<3%	2.5 qt/A
≥3%	3.0 qt/A

<sup>1</sup> Do not exceed 3.0 qt/A of Acuron per year.

## ACURON APPLIED ALONE

**Early Preplant:** Acuron may be applied up to 28 days prior to planting.

**Preemergence Surface:** Acuron may be applied to the soil surface as a broadcast or banded application.

**Early Postemergence:** Acuron may be applied after corn (for grain, seed, or silage) emergence. See the "Adjuvants" section of this label for specific recommendations. Do not apply early postemergence to corn in liquid fertilizer or severe crop injury may occur. Apply this treatment to small broadleaf weeds (less than 3 inches tall). Occasional corn leaf burn may result, but this will not affect later growth or corn yield. Do not apply Acuron to emerged sweet corn or yellow popcorn or severe crop injury may occur. Postemergence applications to corn must be made before crop reaches 12 inches in height.

This product will not provide consistent control of emerged grass weeds. For control of emerged grass weeds a grass herbicide tank mix may be required (see tank mix section of this label). Tank mixes of AAtrex can improve control of emerged annual grass and broadleaf weeds. Refer to the AAtrex label for weeds controlled and use restrictions.

If Bicep II Magnum®, Bicep Lite II Magnum®, AAtrex (atrazine), Dual Magnum®, or Dual II Magnum® alone or in tank mixtures have been applied early preplant, preplant surface, preplant incorporated, or preemergence, limit the Acuron early post application to not exceed a total of 2.5 lbs. of active ingredient of atrazine or 3.75 lbs. of S-metolachlor active per acre, or illegal residues may result.

**Split Application:** Acuron may be applied as a split application in corn (for grain, seed, or silage). For a split application program, apply ½ to ¾ of the labeled rate of Acuron prior to crop emergence followed by a second Acuron application at ¼ to ½ of the labeled rate as a post application after corn emergence. The total amount of Acuron applied in the split application program cannot exceed 2.5 qt/A in soils with <3% OM and cannot exceed 3.0 qt/A in soils with ≥3% OM. Refer to the **Early Postemergence** section above for instructions on post emergence applications.

## **ACURON TANK MIX COMBINATIONS**

### **Use of Spray Adjuvants with Tank Mixtures**

When Acuron is used as a preemergence herbicide, and before weeds have emerged, spray adjuvants have little or no influence on performance. However, in burndown situations where the weeds have emerged and the corn has not, an adjuvant may be used with Acuron applied alone or when applied in tank mixture with a burndown herbicide as allowed on the individual product labels. Use only those adjuvants approved for agricultural crop use. See the “**Adjuvants**” section under “**Application Procedures**” for further instructions.

### **Burndown Combinations for Reduced Tillage Situations**

In reduced or no-till corn and before the crop has emerged, Acuron tank mixes with Gramoxone brands or Touchdown brands (or other glyphosate products such as Roundup brands) will burndown emerged weeds. For best results, tank mixes of Acuron plus Gramoxone should be applied to emerged weeds that are 1-6 inches in height. Consult the Gramoxone, Touchdown brand, or glyphosate product label for further information on weeds controlled and application timings.

### **Preemergence Tank Mixtures Applied Before Corn Emergence**

The tank mix partners listed in Table 4 may be used in either conventional, reduced, or no-till systems and be applied by the same methods and at the same timings as Acuron unless otherwise specified in the tank mix product label. Follow all tank mix product labels for use rates and restrictions. Perform a compatibility test prior to spraying the tank mix application. Tank mixtures with 2,4-D are allowed, but should only be done with extreme care with regard to ensuring compatibility before mixing a load. 2,4-D products, and even batches, vary greatly with regard to compatibility and should be checked each time a water or carrier source, water or carrier temperature, product source, or tank mixture recipe is changed.



**Table 4: Tank Mixtures for Preemergence Applications with Acuron**

<b>Tank Mix</b>	<b>Rate (Max)</b>	<b>Objective</b>
AAtrex or other solo Atrazine products	0.5-1.25 lbs. a.i./A	Improved broadleaf and grass weed control
Princep®	0.5-1.3 lbs. a.i./A	Improved broadleaf and grass weed control
Gramoxone brands	See product label	Burndown existing weeds
Touchdown brands	See product label	Burndown existing weeds
Roundup or other glyphosate brands	See product label	Burndown existing weeds
Warrior brands	See product label	To control insects, such as cutworm

### **Early Postemergence Tank Mixtures Applied After Corn Emergence**

The tank mix partners listed in Table 5 may be used in conventional, reduced or no-till systems and can be applied by the same methods and at the same timings as Acuron unless otherwise specified in the tank mix product label. Follow all tank mix product labels for use rates and restrictions. Perform a compatibility test prior to spraying the tank mix application. Do not apply Acuron tank mixtures to emerged sweet corn or yellow popcorn.

**Table 5: Tank Mixtures for Early Postemergence Weed Control with Acuron**

<b>Tank Mix<sup>1</sup></b>	<b>Rate (Max)</b>	<b>Objective</b>
AAtrex or other solo Atrazine products	0.5-1.25 lbs. a.i./A	Improved broadleaf and annual grass weed control
Warrior brands	3.84 fl. oz./A	To control insects, such as cutworm
Accent® Q	As per product label	Emerged grass control
Basis® brands	As per product label	Emerged grass control
Steadfast® Q	As per product label	Emerged grass control

<sup>1</sup>Consult the “**Adjuvant**” section of this label for directions when applying Acuron alone or in tank mixture to emerged corn (for grain, seed, or silage).

### **Acuron Programs with Glyphosate in Glyphosate Tolerant Corn**

Acuron may be applied early postemergence at a rate of 1.5-2 qts./A in tank mixture with a solo glyphosate product (e.g. Touchdown or Roundup brands) that is registered for use over-the-top in glyphosate tolerant field corn (e.g. Roundup Ready or Agrisure™ GT Corn). To minimize weed competition with the crop, target the application of this mixture to weeds in the 1 to 2 inch range. Do not apply this mixture to corn that is greater than 12 inches tall. If the glyphosate product has a built-in adjuvant system (i.e. the product label does not ask for additional adjuvant), only spray-grade ammonium

sulfate (AMS) at 8.5 lbs./100 gal should be added to this mixture. If the glyphosate product label calls for an adjuvant in addition to AMS, add a non-ionic surfactant (NIS) at 0.25% v/v and AMS to this spray mixture. Do not add urea ammonium nitrate (UAN), crop oil concentrate (COC), or methylated seed oil (MSO) type adjuvants to these mixtures, or crop injury may occur. Follow all directions for use and restrictions on the glyphosate product label.

Alternatively, Acuron may be applied preemergence at a rate down to 2 qts./A as part of a two-pass weed control system when followed by a postemergence application of a glyphosate based product in glyphosate tolerant corn (e.g. Roundup Ready or Agrisure GT Corn). When used in this way, Acuron will provide reduced competition of the weeds listed in Table 1 for a period of 30 or more days, thus improving the timing flexibility and effectiveness of the glyphosate based product application. Follow all directions for use and restrictions on the glyphosate product label.

Acuron may be applied preemergence at 1.25-1.5 qts./A as part of a two-pass weed control system when followed by Halex® GT post-emergence in glyphosate tolerant corn (e.g. Roundup Ready or Agrisure GT Corn). Follow all directions for use and restrictions on each product label.

### **Acuron Programs for LibertyLink Corn**

Acuron may be applied early postemergence at a rate of 1.5 - 2 qts./A in tank mixture with Ignite and applied over-the-top in field corn designated as LibertyLink. To minimize weed competition with the crop, target the application of this mixture to weeds in the 1 to 2 inch range. Do not apply this mixture to corn that is greater than 12 inches tall. Ammonium sulfate (AMS) may be added as a spray adjuvant as directed on the Ignite label. However, AMS should be the only adjuvant added to this tank mixture. Do not add urea ammonium nitrate (UAN), crop oil concentrate (COC), non-ionic surfactants (NIS), or methylated seed oil (MSO) type adjuvants to these mixtures, or crop injury may occur. Follow all directions for use and restrictions on the Ignite product label.

Alternatively, Acuron may be applied preemergence at a rate down to 2 qts./A as part of a two-pass weed control system when followed by a postemergence application of Ignite in field corn designated as LibertyLink. When used in this way, Acuron will provide reduced competition of the weeds listed in Table 1 for a period of 30 or more days, thus improving the timing flexibility and effectiveness of the Ignite application. Follow all directions for use and restrictions on the Ignite product label.

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## **STORAGE AND DISPOSAL**

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Do not contaminate water, food, or feed by storage or disposal.

### **Pesticide Storage**

Keep container tightly closed when not in use. Do not store near seeds, fertilizers, or foodstuffs. Keep away from heat and flame. Ground water contamination may be

reduced by diking and flooring of permanent liquid bulk storage sites with an impermeable material.

### **Pesticide Disposal**

Open dumping is prohibited. Waste resulting from the use of this product may be disposed of on site or at an approved waste disposal facility. Rinse spray equipment. Pesticide wastes are acutely hazardous. Improper disposal of excess pesticide, spray mixture, or rinsate is a violation of Federal law. If these wastes cannot be disposed of as described above, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste Representative at the nearest EPA Regional Office for guidance.

### **Container Handling [equal to or less than 5 gallons]**

Non-refillable container. Do not reuse or refill this container. Offer for recycling if available. Triple rinse container (or equivalent) promptly after emptying. Triple rinse as follows: empty the remaining contents into application equipment of a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container  $\frac{1}{4}$  full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. Then offer for recycling if available or puncture and dispose of in a sanitary landfill, or by incineration, or, by other procedures allowed by state and local authorities.

For minor spills, leaks, etc. follow all precautions on this label and clean up immediately. Take special care to avoid contamination of equipment and facilities during cleanup procedures and disposal of wastes. In the event of a major spill, fire, or other emergency, call 1-800-888-8372, day or night. If the container is damaged and leaking or material has been spilled follow these procedures:

1. Cover spill with absorbent material.
2. Sweep into disposal container.
3. Wash area with detergent and water and follow with clean water rinse.
4. Do not allow to contaminate water supplies.
5. Dispose of according to instructions.

### **Container Handling [greater than 5 gallons]**

Refillable container. Refill this container with pesticide only. Do not reuse this container for any other purpose. Cleaning the container before final disposal is the responsibility of the person disposing of the container. Cleaning before refilling is the responsibility of the refiller. To clean container before final disposal, empty the remaining contents from this container into application equipment or mix tank. Fill the container about 10 percent full with water. Agitate vigorously or recirculate water with the pump for 2 minutes. Pour or pump rinsate into application equipment or rinsate collection system. Repeat this rinsing procedure two more times. Then offer for recycling if available or puncture and dispose of in a sanitary landfill, or by incineration, or, by other procedures allowed by state and local authorities.

For minor spills, leaks, etc. follow all precautions on this label and clean up immediately. Take special care to avoid contamination of equipment and facilities during cleanup procedures and disposal of wastes. In the event of a major spill, fire, or other emergency, call 1-800-8372, day or night. If the container is damaged and leaking or material has been spilled follow these procedures:

1. Cover spill with absorbent material.
2. Sweep into disposal container.
3. Wash area with detergent and water and follow with clean water rinse.
4. Do not allow to contaminate water supplies.
5. Dispose of according to instructions.

**CONTAINER IS NOT SAFE FOR FOOD, FEED, OR DRINKING WATER!**

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AAtrex®, Acuron™, Agrisure® GT, Bicep II Magnum®, Bicep Lite II Magnum®, Callisto®, Callisto Plant Technology®, Concep®, Dual II Magnum®, Dual Magnum®, Gramoxone®, Halex® GT, Princep®, Touchdown®, Warrior®, and the SYNGENTA Logo are Trademarks of a Syngenta Group Company.

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<p>For non-emergency information (e.g., current product information), call Syngenta Crop Protection at 1-800-334-9481</p>
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Manufactured for:  
Syngenta Crop Protection, LLC  
P. O. Box 18300  
Greensboro, North Carolina 27419-8300

[BASE LABEL]

**RESTRICTED USE PESTICIDE**  
**(GROUND AND SURFACE WATER CONCERNS)**  
**FOR RETAIL SALE TO AND USE ONLY BY CERTIFIED APPLICATORS OR PERSONS**  
**UNDER THEIR DIRECT SUPERVISION, AND ONLY FOR THOSE USES COVERED BY THE**  
**CERTIFIED APPLICATOR'S CERTIFICATION.**  
**THIS PRODUCT IS A RESTRICTED-USE HERBICIDE DUE TO GROUND AND SURFACE**  
**WATER CONCERNS. USERS MUST READ AND FOLLOW ALL PRECAUTIONARY**  
**STATEMENTS AND INSTRUCTIONS FOR USE IN ORDER TO MINIMIZE POTENTIAL FOR**  
**ATRAZINE TO REACH GROUND AND SURFACE WATER.**

**Sale, use and distribution of this product in Nassau and Suffolk Counties in the State of New York is prohibited.**

**GROUP    5   15   27   HERBICIDES**

**Acuron Herbicide**

A Herbicide for Control of Annual Grass and Broadleaf Weeds in Field Corn, Seed Corn, Silage Corn, Sweet Corn and Yellow Popcorn

**Active Ingredients\*:**

S-Metolachlor: (CAS No. 87392-12-9).....	23.40%
Atrazine**: (CAS No. 1912-24-9).....	10.93%
Mesotrione: (CAS No. 104206-82-8).....	2.60%
Bicyclopyrone: (CAS No. 352010-68-5) .....	0.65%
Other Ingredients:	62.42%
Total:	100.00%

\*Active ingredients per gallon: Atrazine 1.0 pound, Bicyclopyrone 0.06 pounds, Mesotrione 0.24 pounds and S-metolachlor 2.14 pounds.

\*\*Atrazine with a maximum of 0.45% related triazines.

**KEEP OUT OF REACH OF CHILDREN.**

**CAUTION**

See directions for use in attached booklet.

**AGRICULTURAL USE REQUIREMENTS**

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR part 170. Refer to supplemental labeling under "Agricultural Use Requirements" in Directions for Use section for information about this standard.

EPA Reg. No. 100-XXXX

2.5 gallons  
Net Contents

120 gallons  
Net Contents

220 gallons  
Net Contents

330 gallons  
Net Contents

\_\_\_\_\_gallons[bulk]  
Net Contents



<b>FIRST AID</b>	
<b>If swallowed</b>	<ul style="list-style-type: none"> <li>• Call a Poison Control Center or doctor immediately for treatment advice.</li> <li>• Have person sip a glass of water if able to swallow.</li> <li>• Do not induce vomiting unless told to do so by a poison control center or doctor.</li> <li>• Do not give anything to an unconscious person.</li> </ul>
<b>If in eyes</b>	<ul style="list-style-type: none"> <li>• Hold eye open and rinse slowly and gently with water for 15-20 minutes.</li> <li>• Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye.</li> <li>• Call a Poison Control Center or doctor for treatment advice.</li> </ul>
<b>If on skin or clothing</b>	<ul style="list-style-type: none"> <li>• Take off contaminated clothing.</li> <li>• Rinse skin immediately with plenty of water for 15-20 minutes.</li> <li>• Call a Poison Control Center or doctor for treatment advice.</li> </ul>
<b>If inhaled</b>	<ul style="list-style-type: none"> <li>• Move person to fresh air.</li> <li>• If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth, if possible.</li> <li>• Call a Poison Control Center or doctor for further treatment advice.</li> </ul>
Have the product container or label with you when calling a poison control center or doctor, or going for treatment.	
<p align="center"><b>HOT LINE NUMBER</b>            For 24 Hour Medical Emergency Assistance (Human or Animal)            or Chemical Emergency Assistance (Spill, Leak, Fire or Accident),            Call  <b>1-800-888-8372</b></p>	

## **PRECAUTIONARY STATEMENTS**

### **HAZARDS TO HUMANS AND DOMESTIC ANIMALS**

#### **CAUTION**

Harmful if swallowed. Causes moderate eye injury. Avoid contact with eyes, skin, or clothing. Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals.

#### **Personal Protective Equipment (PPE)**

Some materials that are chemical-resistant to this product are listed below.



**Mixers, Loaders, Applicators and other handlers must wear:**

- Coveralls over short-sleeved shirt and short pants
- Chemical-resistant gloves – Category A (e.g. barrier laminate, butyl rubber, nitrile rubber, neoprene rubber, natural rubber, polyethylene, polyvinyl chloride (PVC) or Viton®)
- Chemical-resistant footwear plus socks
- Chemical-resistant apron when mixing/loading, cleaning up spills, or cleaning equipment, or otherwise exposed to the concentrate
- Chemical-resistant headgear for overhead exposure.

See engineering controls for additional requirements

Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables exist, use detergent and hot water. Keep and wash PPE separately from other laundry. Discard clothing and other absorbent materials that have been drenched or heavily contaminated with this product's concentrate. Do not reuse them.

**Engineering Control Statements**

When applicators use closed systems or enclosed cabs in a manner that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides [40 CFR 170.240(d)(5)], the handler PPE requirements may be reduced or modified as specified in the WPS.

**User Safety Recommendations**

**Users should:**

- Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet.
- Remove clothing/PPE immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.
- Remove PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

**Environmental Hazards**

Do not apply directly to water, to areas where surface water is present, or to intertidal areas below the mean high water mark. Do not contaminate water when disposing of equipment wash water or rinsate. This product contains atrazine, which has been shown to be toxic to aquatic invertebrates. Runoff and drift from treated areas may be hazardous to aquatic organisms in neighboring areas. Do not apply when weather conditions favor drift from treated areas.

### **Ground Water Advisory**

Acuron contains the active ingredients atrazine, S-metolachlor, and bicyclopyrone.

Atrazine can travel (seep or leach) through soil and can enter ground water which may be used as drinking water. Atrazine has been found in ground water. Users are advised not to apply atrazine to sand and loamy sand soils where the water table (ground water) is close to the surface and where these soils are very permeable, i.e., well-drained. Your local agricultural agencies can provide further information on the type of soil in your area and the location of ground water.

S-metolachlor has the potential to leach through soil into ground water under certain conditions as a result of agricultural use. Use of this product in areas where soils are permeable, particularly where the water table is shallow may result in ground water contamination.

Bicyclopyrone is known to leach through soil into ground water under certain conditions as a result of label use. This chemical may leach into ground water if used in areas where soils are permeable, particularly where the water table is shallow.

### **Surface Water Advisory**

This product has a high potential for reaching surface water via runoff for several months or more after application. A level, well-maintained vegetative buffer strip between areas to which this product is applied and surface water features such as ponds, streams, and springs will reduce the potential loading of bicyclopyrone from runoff water and sediment. Runoff of this product will be reduced by avoiding applications when rainfall or irrigation is expected to occur within 48 hours.

### **Mixing/Loading Instructions**

Care must be taken when using this product to prevent back-siphoning into wells, spills, or improper disposal of excess pesticide, spray mixtures, or rinsates.

Check valves or antisiphoning devices must be used on mixing equipment.

This product must not be mixed/loaded or used within 50 ft. of wells, including abandoned wells, drainage wells, and sink holes. Operations that involve mixing, loading, rinsing, or washing to this product into or from pesticide handling or application equipment or containers within 50 ft. of any well are prohibited, unless conducted on an impervious pad constructed to withstand the weight of the heaviest load that may be positioned on or moved across the pad. Such a pad shall be designed and maintained to contain any product spills or equipment leaks, container or equipment rinse or wash water, and rain water that may fall on the pad. Surface water shall not be allowed to either flow over or from the pad, which means the pad must be self-contained. The pad

shall be sloped to facilitate material removal. An unroofed pad shall be of sufficient capacity to contain, at a minimum, 110% of the capacity of the largest pesticide container or application equipment on the pad. A pad that is covered by a roof of sufficient size to completely exclude precipitation from contact with the pad shall have a minimum containment capacity of 100% of the capacity of the largest pesticide container or application equipment on the pad. Containment capacities as described above shall be maintained at all times. The above specified minimum containment capacities do not apply to vehicles when delivering pesticide shipments to the mixing/loading site.

Additional State imposed requirements regarding well head setbacks and operational area containment must be observed.

This product must not be mixed or loaded within 50 ft. of perennial or intermittent streams and rivers, natural or impounded lakes and reservoirs. This product may not be applied within 66 ft. of the points where field surface water runoff enters perennial or intermittent streams and rivers or within 200 ft. from the edge of natural or impounded lakes and reservoirs. If this product is applied to highly erodible land, the 66 ft. buffer or setback from runoff entry points must be planted to crop, or seeded with grass or other suitable crop.

#### **Tile-Outletted Terraced Fields Containing Standpipes**

One of the following restrictions must be used in applying atrazine to tile-outletted terraced fields containing standpipes:

1. Do not apply this product within 66 ft. of standpipes in tile-outletted terraced fields.
2. Apply this product to the entire tile-outletted terraced field and immediately incorporate it to a depth of 2-3 inches in the entire field.
3. Apply this product to the entire tile-outletted terraced field under a no-till practice only when a high crop residue management practice is practiced. High crop residue management is described as a crop management practice where little or no crop residue is removed from the field during and after crop harvest.

#### **Physical and Chemical Hazards**

Do not use or store near heat or open flame.

[For 120, 220, 330 gallon and bulk]

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**CONDITIONS OF SALE AND LIMITATION OF WARRANTY AND LIABILITY**

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**NOTICE:** Read the entire Directions for Use and Conditions of Sale and Limitation of Warranty and Liability before buying or using this product. If the terms are not acceptable, return the product at once, unopened, and the purchase price will be refunded.

The Directions for Use of this product must be followed carefully. It is impossible to eliminate all risks inherently associated with the use of this product. Crop injury, ineffectiveness or other unintended consequences may result because of such factors as manner of use or application, weather or crop conditions, presence of other materials or other influencing factors in the use of the product, which are beyond the control of SYNGENTA CROP PROTECTION, LLC or Seller. To the extent permitted by applicable law, Buyer and User agree to hold SYNGENTA and Seller harmless for any claims relating to such factors.

SYNGENTA warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes stated in the Directions for Use, subject to the inherent risks referred to above, when used in accordance with directions under normal use conditions. To the extent permitted by applicable law: (1) this warranty does not extend to the use of the product contrary to label instructions, or under conditions not reasonably foreseeable to or beyond the control of Seller or SYNGENTA, and, (2) Buyer and User assume the risk of any such use. To the extent permitted by applicable law, SYNGENTA MAKES NO WARRANTIES OF MERCHANTABILITY OR OF FITNESS FOR A PARTICULAR PURPOSE NOR ANY OTHER EXPRESS OR IMPLIED WARRANTY EXCEPT AS WARRANTED BY THIS LABEL.

To the extent permitted by applicable law, in no event shall SYNGENTA or Seller be liable for any incidental, consequential or special damages resulting from the use or handling of this product. **TO THE EXTENT PERMITTED BY APPLICABLE LAW, THE EXCLUSIVE REMEDY OF THE USER OR BUYER, AND THE EXCLUSIVE LIABILITY OF SYNGENTA AND SELLER FOR ANY AND ALL CLAIMS, LOSSES, INJURIES OR DAMAGES (INCLUDING CLAIMS BASED ON BREACH OF WARRANTY, CONTRACT, NEGLIGENCE, TORT, STRICT LIABILITY OR OTHERWISE) RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT, SHALL BE THE RETURN OF THE PURCHASE PRICE OF THE PRODUCT OR, AT THE ELECTION OF SYNGENTA OR SELLER, THE REPLACEMENT OF THE PRODUCT.**

SYNGENTA and Seller offer this product, and Buyer and User accept it, subject to the foregoing Conditions of Sale and Limitation of Warranty and Liability, which may not be modified except by written agreement signed by a duly authorized representative of SYNGENTA.

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## STORAGE AND DISPOSAL

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Do not contaminate water, food, or feed by storage or disposal.

### **Pesticide Storage**

Keep container tightly closed when not in use. Do not store near seeds, fertilizers, or foodstuffs. Keep away from heat and flame. Ground water contamination may be reduced by diking and flooring of permanent liquid bulk storage sites with an impermeable material.

### **Pesticide Disposal**

Open dumping is prohibited. Waste resulting from the use of this product may be disposed of on site or at an approved waste disposal facility. Rinse spray equipment. Pesticide wastes are acutely hazardous. Improper disposal of excess pesticide, spray mixture, or rinsate is a violation of Federal law. If these wastes cannot be disposed of as described above, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste Representative at the nearest EPA Regional Office for guidance.

### **Container Handling [equal to or less than 5 gallons]**

Non-refillable container. Do not reuse or refill this container. Offer for recycling if available. Triple rinse container (or equivalent) promptly after emptying. Triple rinse as follows: empty the remaining contents into application equipment of a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container  $\frac{1}{4}$  full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. Then offer for recycling if available or puncture and dispose of in a sanitary landfill, or by incineration, or, by other procedures allowed by state and local authorities.

For minor spills, leaks, etc. follow all precautions on this label and clean up immediately. Take special care to avoid contamination of equipment and facilities during cleanup procedures and disposal of wastes. In the event of a major spill, fire, or other emergency, call 1-800-888-8372, day or night. If the container is damaged and leaking or material has been spilled follow these procedures:

1. Cover spill with absorbent material.
2. Sweep into disposal container.
3. Wash area with detergent and water and follow with clean water rinse.
4. Do not allow to contaminate water supplies.
5. Dispose of according to instructions.

### **Container Handling [greater than 5 gallons]**

Refillable container. Refill this container with pesticide only. Do not reuse this container for any other purpose. Cleaning the container before final disposal is the responsibility of the person disposing of the container. Cleaning before refilling is the responsibility of the refiller. To clean container before final disposal, empty the remaining contents from



this container into application equipment or mix tank. Fill the container about 10 percent full with water. Agitate vigorously or recirculate water with the pump for 2 minutes. Pour or pump rinsate into application equipment or rinsate collection system. Repeat this rinsing procedure two more times. Then offer for recycling if available or puncture and dispose of in a sanitary landfill, or by incineration, or, by other procedures allowed by state and local authorities.

For minor spills, leaks, etc. follow all precautions on this label and clean up immediately. Take special care to avoid contamination of equipment and facilities during cleanup procedures and disposal of wastes. In the event of a major spill, fire, or other emergency, call 1-800-8372, day or night. If the container is damaged and leaking or material has been spilled follow these procedures:

1. Cover spill with absorbent material.
2. Sweep into disposal container.
3. Wash area with detergent and water and follow with clean water rinse.
4. Do not allow to contaminate water supplies.
5. Dispose of according to instructions.

**CONTAINER IS NOT SAFE FOR FOOD, FEED, OR DRINKING WATER!**

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Manufactured for:  
Syngenta Crop Protection, LLC  
P. O. Box 18300  
Greensboro, North Carolina 27419-8300

Acuron Herbicide-Version-C – bb – 1-26-15  
000100-xxxxx.20120912C.SYN-A19707Herbicide\_NewProduct\_SEPT2012.pdf

Acuron Herbicide-Version-D – bb – 3-3-15  
000100-xxxxx.20120912D.SYN-A19707Herbicide\_NewProduct\_SEPT2012.pdf

Acuron Herbicide-Version-E – bb – 3-4-15  
000100-xxxxx.20120912E.SYN-A19707Herbicide\_NewProduct\_SEPT2012.pdf

Acuron Herbicide-Version-F – bb – 3-10-15  
000100-xxxxx.20120912F.SYN-A19707Herbicide\_NewProduct\_SEPT2012.pdf

Acuron Herbicide-Version-G – bb – 3-11-15  
000100-xxxxx.20120912G.SYN-A19707Herbicide\_NewProduct\_SEPT2012.pdf

Acuron Herbicide-Version-H – bb – 4-1-15  
000100-xxxxx.20120912H.SYN-A19707Herbicide\_NewProduct\_SEPT2012.pdf



Acuron Herbicide-Version-I – pl – 4-20-15  
000100-xxxxx.20120912I.SYN-A19707Herbicide\_NewProduct\_SEPT2012.pdf

Acuron Herbicide-Version-J – bb – 4-22-15  
000100-xxxxx.20120912J.SYN-A19707Herbicide\_NewProduct\_SEPT2012.pdf



John D. Abbott, Ph.D., CPH  
NA Regulatory Team Leader  
(336) 632-7074  
John.abbott@syngenta.com

Syngenta Crop Protection, LLC  
P.O. Box 18300  
Greensboro, NC 27419-8300  
www.syngenta.com

**Jack E. Housenger**  
**Director, Office of Pesticide Programs**  
**United States Environmental Protection Agency**

**Re: Proposed Registration of Acuron (EPA File Symbol No. 100-RUAA)**

**Dear Mr. Housenger:**

Thank you for EPA's consideration of Syngenta's application to register Acuron, File Symbol No. 100-RUAA (referred to as "Acuron" or "100-RUAA" in this letter and its enclosure). Today's letter amends that application to incorporate additional requirements of registration and regulatory consequences for failure to meet it. This requirement is a specific herbicide use reduction of interest to EPA to be accomplished by a specific timeline.

Acuron's introduction will result in reduction in the use of other specific Syngenta products (as defined in the enclosed confidential business plans), resulting in a reduction of 3.6 million pounds of atrazine per year applied on the base acres treated with the specific Syngenta products compared to the baseline (as detailed in the enclosed confidential business plans). Syngenta predicts that this annual reduction will be achieved no later than the 2020 growing season.

**1. Terms and Conditions of Registration**

- a. Annual reports:** Syngenta will provide an annual report to EPA no later than March 31 of each year following Acuron's first full launch year (the first full launch year currently is anticipated to be 2016 and, if so, the first report would be made in March of 2017). The report will include data on the total application of specific herbicide products to corn grown in the U.S. in the preceding year (as detailed in the enclosed confidential business plans).
- b. 2018 Interim Milestone:** In the annual report on the 2018 growing season (provided in March of 2019) Syngenta will demonstrate a 1.6 million pound reduction of atrazine applied per year on base acres treated with the specific Syngenta products compared to the baseline (referred to as "the interim milestone"). Additional details also are provided in the enclosed confidential business plans.

If this interim milestone is not reached, no later than April 15, 2019 Syngenta will submit for EPA approval revisions to the label for Acuron which include a reduction or prohibition of the use of additional atrazine in tank-mixing or sequential use (or other measures agreed upon with EPA prior to that date) that would be consistent with achieving the 2020 atrazine reduction milestone. Provided that EPA approves the label revisions by May 31, 2019, this revised label must be on all Acuron product (100-RUAA) that Syngenta releases for shipment as of September 30, 2019. If Syngenta submits label revisions by April 15, 2019, but EPA has not approved the label revisions by May 31, EPA and Syngenta will discuss and establish a revised schedule for making the revisions.

- c. 2020 Milestone:** In the annual report on the 2020 growing season (provided in March of 2021), Syngenta will demonstrate an approximately 3.6 million pound reduction of atrazine (as detailed in the enclosed confidential business plans).

If the 2018 interim milestone is reached but the 2020 milestone is not reached, no later than April 15, 2021 Syngenta will submit for EPA approval revisions to the label for Acuron which include a reduction or prohibition of the use of additional atrazine in tank-mixing or sequential use (or other measures agreed upon with EPA prior to that date) that would be consistent with achieving the 2020 atrazine reduction milestone in the 2021 growing season. (Meeting the 2020 atrazine reduction milestone in either 2020 or 2021 is referred to in this letter and its enclosure as “the milestone”). Provided that Syngenta submits label revisions by April 15, 2021, and EPA approves the label revisions by May 31, 2021, this revised label must be on all Acuron product (100-RUAA) that Syngenta releases for shipment as of September 30, 2021. If Syngenta submits the label revisions by April 15, 2021 but EPA has not approved the label revisions by May 31, EPA and Syngenta will discuss and establish a revised schedule for making the revisions.

## **2. Failure to Achieve Herbicide Use Reduction**

a. If neither the 2018 nor the 2020 reduction milestone is reached, Syngenta agrees that EPA may, at its sole discretion, issue an order cancelling the 100-RUAA registration without a hearing (subject to the rights reserved in paragraph 2.b. below). If the 2018 milestone is reached, the 2020 milestone is not reached, label revisions are undertaken for the 2021 growing season as provided above, and the 2020 milestone is not reached in the 2021 growing season (as demonstrated by the annual report submitted in March 2022), then Syngenta agrees that EPA may, at its sole discretion, issue an order cancelling the 100-RUAA registration without a hearing (subject to the rights reserved in paragraph 2.b. below). Before issuing any such order based on either of those two possibilities, EPA will consider the actual use reduction achieved and any other factors that may have affected the use reductions that were outside of Syngenta’s control. If EPA nonetheless decides to issue a cancellation order, it will notify Syngenta in writing of its intention to cancel the registration and will specify in such notification the basis for its conclusion that Syngenta has failed to meet the 2020 milestone in the 2020 or 2021 growing season, whichever applies. If within ten (10) business days of receipt of such notification Syngenta submits to the Agency a request in writing to meet with the Director of the Office of Pesticide Programs (“Office Director”) before a cancellation order is issued, the Agency will not issue a cancellation order before providing Syngenta an opportunity to meet with the Office Director to discuss whether cancellation is appropriate. The decision of the Office Director thereafter shall be final.

Syngenta agrees to issuance of a cancellation order pursuant to this paragraph provided that it would contain provisions allowing Syngenta to sell remaining 100-RUAA stocks (produced, labeled and released for shipment as of the effective date of cancellation); allowing persons other than Syngenta to sell and distribute existing stocks; and allowing use of such existing stocks in accordance with the label on the product until exhausted.

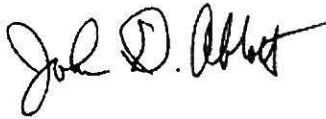
b. Syngenta agrees that it will not challenge (or provide financial or technical assistance to anyone challenging) in any administrative forum the issuance of any cancellation order that conforms to all the terms of paragraph 2.a. of this letter. Notwithstanding the foregoing sentence, nothing in this paragraph shall limit Syngenta's right to: 1) defend against an EPA cancellation proceeding brought outside the terms of this letter; 2) support or participate in any action (in any forum) that challenges any EPA policy or practice of general applicability that may affect the ultimate requirements set forth in EPA's registration approval letter for 100-RUAA , including the support of or participation in the activities of any trade association or coalition that is involved in any such challenge; 3) defend any personal injury, toxic tort, or other such suit and raise any defense in such suit; 4) submit applications to amend any requirement or milestone in this letter; or 5) enforce rights under FIFRA or EPA's implementing regulations other than rights waived in this letter.

### **3. Sustained Achievement**

- a. The atrazine reduction addressed in this letter and its confidential enclosure will be sustained. Syngenta will continue annual reporting until March 31, 2024, or until such time that the 2020 milestone has been documented in three consecutive annual reports, whichever is sooner.
- b. Syngenta will also develop and submit for EPA approval a product stewardship program designed to achieve the milestone. The program will commence upon EPA approval, and will include at least the following elements:
  - The ability to minimize the tank-mixing of additional herbicides with Acuron due to the high level of control of difficult weeds provided by bicyclopyrone. For example, awareness of reduced atrazine rates needed to achieve weed control with Acuron, as well as the excellent fit for Acuron in one-pass weed control programs in corn will be included.
  - The key benefits of the diversity of multiple mode-of-action active ingredients for management of resistant weeds.
  - The importance of Integrated Pest Management (IPM) and soil stewardship practices (such as low/no-till practices).
  - Education and outreach on watershed stewardship and conservation practices, and the use of Best Management Practices to reduce the offsite movement of herbicides.

Syngenta appreciates EPA's consideration of the information and commitments in this letter and the confidential business plans in the enclosure. The confidential enclosure provides further details on Syngenta's business plans to achieve the milestone above on the timeline in this letter if not earlier. We appreciate EPA's review and pending registration decision of this important new agricultural tool.

Sincerely,

A handwritten signature in black ink, appearing to read "John D. Abbott". The signature is fluid and cursive, with the first name "John" being the most prominent.

John D. Abbott, Ph.D., CPH

Enclosure (Confidential Business Information)





